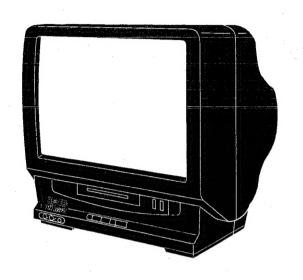
Service Manual



COMBINATION-VCR

Panasonic Omnivision

VHS

PV-M1324 PV-M1324W PV-M2024 PV-M2044

ITI	M	SPECIFICATION	1	2	3	ITE	M	SPECIFICATION	1	2	3
		Head: 2 rotary heads helical scanning system 4 rotary heads helical scanning system	0	0	0		Tape	SP: 1-5/16 i.p.s (33.35mm/sec), LP: 21/32 i.p.s (16.67mm/sec), SLP: 7/16 i.p.s (11.12mm/sec)			0
	Video	Input Level : VIDEO IN Jack (Phono type) 1.0 Vp-p 75Ω unbalanced Output Level : VIDEO OUT Jack (Phono type) 1.0 Vp-p 75Ω unbalanced Signal-to-Noise Ratio : SP : more than 43dB			000	VCR	Speed	Record/Playback Time: 8 Hrs with 160min. type tape used in SLP mode FF/REW Time: Less 5min. (120min. type tape)			
		LP/SLP: more than 41dB Horizontal Resolution : Color/Monochrome : more than 230 lines	00	00	00		Tape Format	Tape width 1/2" (12.7mm) high density tape	0	0	0
VCR		Head: Normal Mono: 1 stationary head	0	1	0	2/22/11/	Picture	13 inch measured diagonal 90° deflection	0	_	_
	Audio	Input Level : AUDIO IN Jack (Phono type) - 10dBV 50kQunbalanced	0	0		DISPLAY	Tube	20 inch measured diagonal 90° deflection	-	0	0
		Output Level: AUDIO OUT Jack (Phono type) - 8dBV 600Ωunbalanced	_	_	0			Source: 120V AC ±10% 60Hz ±0.5%	0	0	0
		requency Response: Normal Mono : SP : 100Hz ~ 8kHz LP : 100Hz ~ 6kHz SLP : 100Hz ~ 5kHz		0	0		Power	Consumption : 69 watts Consumption : 112 watts	0		0
		Signal-to-Noise Ratio :Normal Mono : SP : more than 42dB LP/SLP : more than 40dB	0	0	0			EIA Standard (525 lines, 60 fields) NTSC Color Signal	0	0	0
		Wow and Flutter: Normal Mono: SP: Less than 0.2% WRMS LP: Less than 0.3% WRMS SLP: Less than 0.4% WRMS	0	0	0	GENERAL	System Operating Condition	41°F(5°C) ~ 104°F(40°C) (Temperature) 10% ~ 75% (Humidity)	0	0	0
	Tuner	Broadcast Channels : VHF 2 ~ 13, UHF 14 ~ 69 CATV Channels : Midband A through I (14 ~ 22) : Superband J through W (23 ~ 36)						14-13/16"(376mm) (W) x 15-7/8"(403mm)(H) x 15-1/8"(384mm) (D) 21-1/8"(536mm) (W) x 21-1/4"(540mm)(H) x 19-3/16"(487mm) (D)	0	0	0
	Tuner	: Hyperband AA ~ EEE (37 ~ 64) : Lowband A-5 ~ A-1 (95 ~ 99) : Special CATV channel 5A (01) : Ultraband 65 ~ 94, 100 ~ 125	0	0	0		Weight	Approx. 29.1lbs (13.2kg) Approx. 52.9lbs (24kg)	0	0	0

- 1. PV-M1324/PV-M1324W
- 2. PV-M2024
- 3. PV-M2044

Weight and dimensions shown are approximate. Specifications are subject to change without notice.

Panasonic_®

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Summary Adjustment Procedures Schematic Diagrams Circuit Board Diagrams Exploded Views Replacement Parts List Block Diagrams

MODEL	HEAD
PV-M1324	2
PV-M1324W	2
PV-M2024	2
PV-M2044	4

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IMPORTANT SAFETY NOTICE =

There are special components used in this equipment which are important for safety. These parts are marked by \triangle in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

IMPORTANT SAFETY NOTICE:

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COMPARISON CHART OF MODELS & MARKS

MODEL	MARK	NODEL	MARK
PV-M1324	A	PV-M2024	шься
PV-M1324W	B	VV204	
VV134	C	VV204W	
VV134W	D	PV-M2044	

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. It is advisable to insert an isolation transformer in the AC supply before servicing.

2. When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shield, and isolation R-C combinations are properly installed.

4. Before turning the receiver on, measure the resistance between B+ line and chassis ground. Connect (-) side of an ohmmeter to the B+ lines, and (+) side to chassis ground. Each line should have more resistance than specified, as follows:

B+ Line	Minimum R	lesistance
130V	1K ohm	(Hot chassis ground)
27V	180 ohms	(Cold chassis ground)
17V	110 ohms	(Cold chassis ground)

- 5. When the TV set is not used for a long period of time, unplug the power cord from the AC outlet.
- 6. Potentials, as high as [25.0KV: Model A, B, C, D] or [30.0KV: Model E, F, G, H] (see chart above) are present when this TV set is in operation. Operation of the TV set without the rear cover involves the danger of a shock hazard from the TV set power supply. Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture tube to the CRT ground of receiver before handling the tube.
- 7. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

- 1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
- 2. For physically operated power switches, turn power on. Otherwise skip step 2.
- 3. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screwheads, connectors, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 M ohm and 12 M ohms. When the exposed metal does not have a return path to the chassis, the reading must be ∞.

LEAKAGE CURRENT HOT CHECK (See Figure 1)

- Plug the AC cord directly into the AC outlet.
 Do not use a isolation transformer for this check.
- 2. Connect a 1.5K ohms, 10 watts resistor, in parallel with a $0.15\mu F$ capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
- Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
- Check each exposed metallic part, and measure the voltage at each point.
- Reverse the AC plug in the AC outlet and repeat each of the above measurements.
- 6. The potential at any point should not exceed 0.75 volt RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

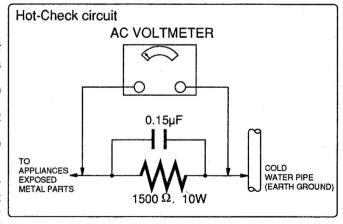


Figure 1

PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors are semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

- Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
- 2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- 3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
- 4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
- 5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
- Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
- 7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION:

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

"NOTE to CATV system installer:

DEPORTS OF A STREET AND A STREET AND A STREET

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."

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X-RADIATION

WARNING:

1. The potential source of X-Radiation in TV sets is the High Voltage section and the picture tube.

2. When using a picture tube test fixture for service, ensure that the fixture is capable of handling

25.0KV: Model A, B, C, D or 30.0KV: Model E, F, G, H (see chart, Page 1-1) without causing X-Radiation.

NOTE:

It is important to use an accurate periodically calibrated high voltage meter.

- Reduce the brightness to minimum.
- 2. Set the SERVICE switch to SERVICE.
- 3. Measure the High Voltage. The meter reading should indicate

23.8 ± 1.5KV : Model A, B, C, D or 28.5 ± 1.5KV : Model E, F, G, H (see chart, Page 1-1).

If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

4. To prevent an X-Radiation possibly, it is essential to use the specified picture tube.

VERTICAL OSC. DISABLE CIRCUIT TEST

SERVICE WARNING:

The test must be made as a final check before set is returned to the customer.

- 1. With the rear cover removed, supply about a 120V AC power source to the set, turn on the set.
- 2. Set the customer controls to normal operating positions.
- 3. Short between TP91 and TP92 on the Main circuit board with a jumper wire. Confirm that the vertical signal is lost.
- If this does not occur, the vertical oscillator disable circuit is not operating. Follow the Repair Procedures of Vertical Oscillator Disable Circuit Repair Procedure before the set is returned to customer.

REPAIR PROCEDURES OF VERTICAL OSCILLATOR DISABLE CIRCUIT

- 1. Connect a DC voltmeter between capacitor C501 (+) on the Main circuit board and chassis ground.
- 2. If approximately +21.9V is not present at that point when 120V AC is applied, find the cause. Check R507, R509, R505, C501 and D503.
- 3. Check 12V supply if out of tolerance. Check Q1201 and other components that affect this transistor on the VCR Chassis.
- 4. Check Q510, Q310 and D510.
- Carefully check above specified parts and related circuits and parts. When the circuit is repaired, try the Vertical Oscillator Disable Circuit Test again.

CIRCUIT EXPLANATION

VERTICAL OSCILLATOR DISABLE CIRCUIT

The positive DC voltage, is supplied from the cathode of D503 for monitoring the high voltage, is applied to the base of Q510 through R508 and R509. The voltage at the emitter of Q510 is regulated by Zener Diode D510. Under normal conditions, the voltage applied across the base and emitter of Q510 is not sufficient to cause base current to flow and holds the transistor cut off. If the high voltage increases over the specified voltage, the positive DC voltage which is supplied from the cathode of D503 also increases. The increased voltage applied to the base of Q510 causes base current to flow through Zener Diode D510. Consequently Q510 collector current begins to flow and turn Q310 on. This causes 12V at IC301 PIN 29 and disables the vertical Sweep. Thus, vertical signal is lost.

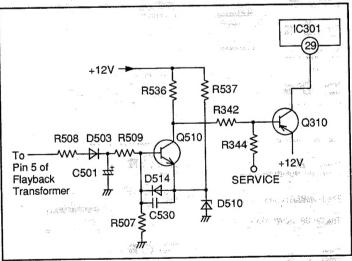
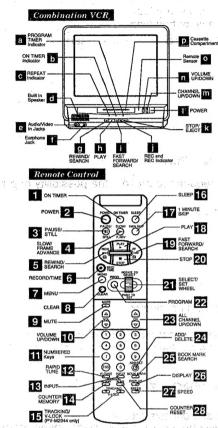


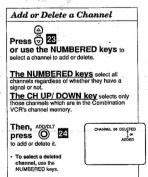
Figure 2

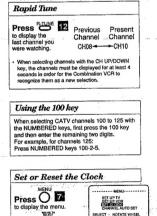
I. SUMMARY A. BASIC OPERATIONS

Control Reference Guide









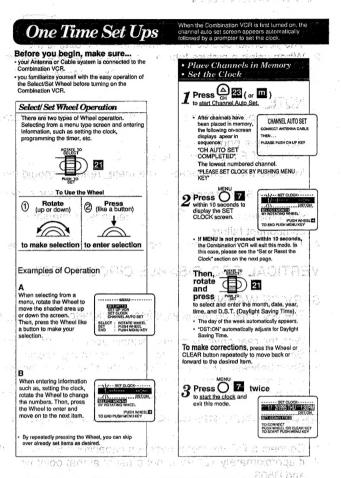


- This Combination VCR will accurately maintain its calendar up to Dec. 31, 2089, 11:59PM.
- Make entries within 5 minutes, or the Combination VCR exits the Set Clock screen.
- Normal TV or Cable channels are automatically selected and placed in memory depending on how your Combination VCR is hooked up.

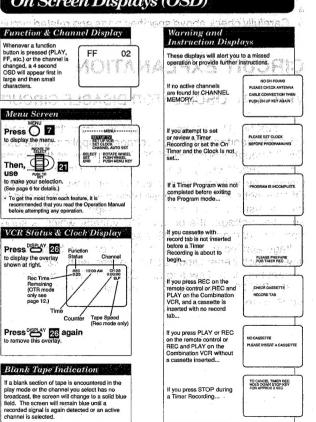
 Channel Auto Set is not accessible when a your Combination voir is noticed up.

 Channel Auto Set is not accessible when a recording is in progress. If it is a timer recording, set clock is also not accessible.

MODERNAR-A



On Screen Displays (OSD)



Watching TV/Closed Caption System

Before you begin, make sure

Watching TV Main Operation

Press O 2 to turn the Combinal

Then, select a channel using the CHANNEL UP/DOWN or NUMBERED keys.

Set the On Timer

automatically. ONTIMER

1 Press O 11.
The ON TIMER displa



channel number for TV mode or "PLAY" for VCR Playback



To make corrections, pro CLEAR button repeatedly to forward the desired item.

Press O. 11
to set the ON TIMER function. "ON TIMER
SET" will appear for about 5 seconds on-

To cancel, press the ON TIMER button after the timer has been set. "ON TIMER END" will appear for about 5 seconds on-screen.

Set the Sleep Timer

Press 0 16 repeatedly.
SLEEP TIMER 30, 60 or 90 (minute

To cancel, press SLEEP button until "SLEEP

Closed Captioned Settings

Caption MODE: CAPTION narration of selected TV programs will be displayed on the screen. Check your TV program istings for CC (closed caption) broadcasts.

Caption MODE: OFF

closed caption proadcast is received.

Caption MODE: TEXT

The lower half of the screen will be blocked out.
When the TV station broadcasts text such as
program listings, special information, etc., it will
appear in this speac. This text block will remain
the screen until you remove it by changing the
display in step 3 below.

Set the Closed Caption Mode



2 Use 21 to select SET UP TV from the menu, and then, select CAPTION.



Recording and Playing Back a

Closed Caption/Text Program

Record: Your Combination VCR will automatically record the Closed Caption/Text signal. Just follow normal recording operation.

Playback: To display the Closed Caption narration or Text during playback, simply follow the steps above.

Basic and Special Playback

Before you begin, make sure ...

Basic Playback Operation

1 Insert a cassette, Parawone as

2 Press 18 (or 1) to start playback.

3 Press 5 5 (or 9)

or 19 (or 11) to quickly locate a scene during playback.

4 Press 20 (or k)

Then, press k on the Combination VCR to eject the

Special Effects During Playback

These features work best in SLP mode. (SP or SLP mode for model PV-M2044 only) Sound will be

Double Speed Playback

Press on the Combination

Slow Motion Playback

Press 💬 🔼

Still Frame Picture

Press @ 3

Frame Advance

Press 6 4 repeatedly

hold down in Still mode, to advance the still one frame at a time. Press STILL or PLAY to release.

Intelligent Search

If later a Rew or FF search is done the search is no-started whithin 5 seconds, the search speed is slow down (SP mode: S times; SLP mode: 9 times) (SP mode for model PV-M202 only) for a duration of 8 sec. Then normal search speed resumes.

Features for a Quality Picture

Digital Auto Tracking This feature continuously analyzes and adjusts for optimum picture qua

Manual Tracking Control Use during Playback, Slow Motion, and Double Speed Playback to reduce picture

Press Con Con 15

until the picture clears up.
To return to Auto tracking, eject and re-insert the tape.

V-Lock Control

(Model PV-M2044 only)
Use during Still mode to reduce jitter.

Press PACKING 15

PanaBlack™ Picture Tube

This Combination VCR uses a PanaBlackTM picture tube for better color reproduction and picture contrast.

Adjusting the Picture and Sound

TV Picture Adjustment 1 Press 0 7 to display the menu SET UP VCA SET CLOCK SELECT : BOTATE WHEEL SET : PUSH WHEEL END : PUSH MENU KEY 2 Use Park 21
Use Park 21
Use Park 21
Up TV and then, to select VIDEO
ADJUST. SELECT : POTATE WHEEL SET : PUSH WHEEL END : PUSH MENU KEY 3 Use 2 21

to select and display the desired video adjust overlay. (See description at right.)



5 Press 7 twice

o exit this mode, if no button is pressed within a video adjust overlay disappea Adjustment scale and setting are displayed to assist you.

To Reset Picture Controls to the Factory Setting



SELECT : ROTATE WHEEL SET : PUSH WHEEL END : PUSH MENU KE

Earphone

Video Adjust Overlays COLOR Control of the colors. 0 -(R) BRIGHT Control V 142 / PICTURE Control 63 PICTURE To adjust the intensity of the picture by adjusting contrast and SHARPNESS Control To adjust the sharp of the picture. ADJUST : ROTATE WHEEL



Press 5 to instantly mute the sound.

Press again, to restore the previous sound level

Connect an earphone (not supplied) to the Earphone jack

(, B.A. coming from VCR Unit and connector (B2) on

Basic Recording

Before you begin, make sure ...

Basic Recording Operation Insert a cassette D with record tab. Combination VCR power automatically. Press 13 until channel number s • To record from an outsi tNPUT so that "LINE" a 3 Press © 23 02 to select a chabe recorded.

4 Press Speed 27 until the desired speed appears on the speed appears of the speed appears on the speed appears of the speed appears on the speed appears on the speed appears of the speed appears on the speed appears of 2030 5 PressOffice 6 (or in and if)

6 Press 20 (or k)

One Touch Recording (OTR) You can set up the Combination VCR to turn itself off at a preset time making it a one touch time recording:

Remove Top Snieto P

In step 5. Continue OREE (or II) to set the recording length.

Each press will change the time as shown in the diagram below.

Normal 0:30 To tape end 4:00

Helpful Notes

Press PAUSE to pause normal recordings in progress One Touch Recordings can not go into Pause mode. After the Combination VCR has been in Pause mode for 5 minutes, it will stop automatically to protect the tape and video head.

B. SERVICE NOTES AND CAUTIONS

When servicing, note the following items.

A. Cylinder Rotation in STOP mode

The cylinder will continue to rotate for approximately 10 minutes after the STOP button is pressed in Play mode etc. Eject the tape in order to stop the cylinder.

B. Servicing the VCR Section and the TV Section

B-1. Service Position (1)

Service Position (1) is used to check the of Mechanism and Electronic Circuits.

In this position, check the movement of mechanical parts on the Mechanism Chassis and replace parts as needed. In this position, limited checking of the electronic circuit on the VCR Main C.B.A. from the component side of the board is possible using the screening on the foil pattern.

To position the VCR Unit and the TV Main C.B.A. for servicing as shown in Fig. 1-1, use the following procedure.

- Remove Back Cover Unit by removing 9 Screws (S-1) in Fig. D2, page 2-2.
- 2) Disconnect connector P4152, P3002 and P4153 : Model E, F, G, H in Fig. D5, page 2-2.
- 3) Release A/C Cord and Lead Ass'y from Clamper on Top Shield Plate Ass'y in Fig. D6, page 2-3.
- 4) Disconnect connectors (K1, K2, K6) on TV Main C.B.A. coming from VCR Unit and connector (B1) on TV Power C.B.A. coming from VCR Unit and connector (B2) on TV Power C.B.A. coming from Power Supply Ass'y in Fig. D4, page 2-2.
- 5) Carefully pull out VCR Unit from TV Cavity.
- 6) Remove Top Shield Plate Ass'y by removing 2 Screws (S-6) and 2 Screws (S-7) in Fig. D6.
- Remove 2 Screws (S-10), 2 Screws (S-11), Screw (S-12), Screw (S-13), Screw (S-14) and Chassis Angle in Fig. D9, page 2-3.
- 8) Remove 2 Screws (S-16) and Screw (S-17) in Fig. D10, page 2-4.
- Disconnect connector P6001 on the VCR Main C.B.A. coming from the Safety Tab SW. in Fig. D10.
- Raise the Mechanism Chassis and fix it using the Chassis Angle which was used to fix the Mechanism Chassis on the Frame.
- 11) Place the VCR Unit for servicing as shown in Fig. 1-1.
- 12) Reconnect connectors(K1, K2, K6, B1, B2), P4152, P3002 and P4153 : Model E, F, G, H

A A Chart

13) Place the jumper between TP6001 and GND.

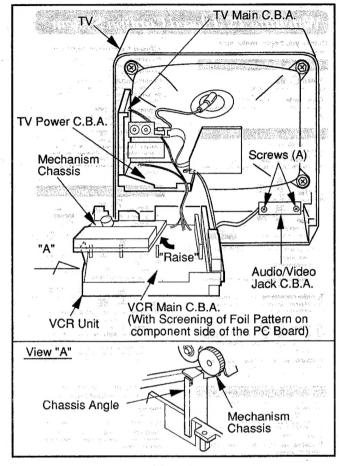


Fig. 1-1

B-2. Service Position (2)

Service Position (2) is used for checking and replacing Mechanical and Electrical parts.

To position the VCR Unit for servicing as shown in Fig. 1-2, use the following procedure.

- 1) Remove Back Cover Unit by removing 9 Screws (S-1) in Fig. D2, page 2-2.
- 2) Disconnect connector P4152 in Fig. D5, page 2-2.
- 3) Model: E, F, G, H
 - Remove Audio/Video Jack C.B.A. by removing 2 Screws (A) as shown in Fig. 1-1.
- Release A/C Cord and Lead Ass'y from Clamper on Top Shield Plate Ass'y in Fig. D6, page 2-3.
- 5) Disconnect connectors (K1, K2, K6) on TV Main C.B.A. coming from VCB Unit and connector (B1) on TV Power C.B.A. coming from VCB Unit and connector (B2) on TV Power C.B.A. coming from Power Supply Ass'y in Fig. D4, page 2-2.
- 6) Carefully pull out VCR Unit and Audio/Video Jack
 C.B.A.: Model E, F, G, H from TV Cavity
- 7) Remove Top Shield Plate Ass'y by removing 2 Screws (S-6) and 2 Screws (S-7) in Fig. D6.
- 8) Remove Power Supply Ass'y by removing Screw (S-8) and Screw (S-9) in Fig. D7, page 2-3.

 Remove Operation I, II C.B.A.s by releasing 3 Locking Tabs (L-6) in Fig. D8, page 2-3.

10) Remove 2 Screws (S-10), 2 Screws (S-11), Screw (S-12), Screw (S-13), Screw (S-14), Screw (S-15) and Chassis Angle in Fig. D9, page 2-3.

11) Lift up the VCR Chassis Unit. Refer to Note Item 1 and 2. Then place it left side down.

12) Remove 2 Screws (S-16) and Screw (S-17) in Fig. D10, page 2-4.

 Disconnect connector P6001 on the VCR Main C.B.A. coming from the Safety Tab SW. in Fig. D10.

14) Open the Mechanism Chassis and the Cassette Up Ass'y.

15) Reconnect connectors(K1, K2, K6, B1, B2).

16) Place the jumper between TP6001 and GND.

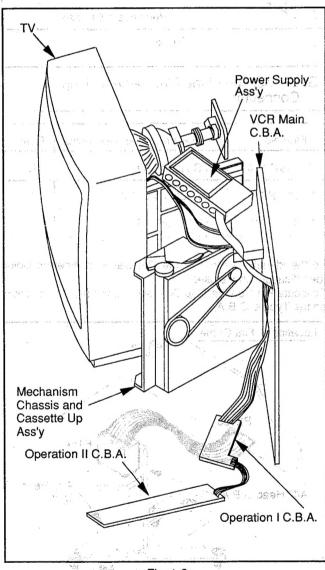


Fig. 1-2

Note:

1. To remove the VCR Chassis Unit from the frame:

 While pressing in on the locking tab (A), lift the Side Plate -R of Cassette Up Ass'y until the edge of VCR Main C.B.A. clears the locking tab (A).

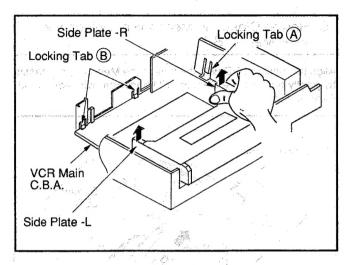


Fig. 1-3

- 2. When lifting up the VCR Chassis Unit, do not pull up on the Top Plate of the Cassette Up Ass'y.
- 3. When servicing in Service Position (2), do not use a T160 tape. It may cause a Tape Jam.
- If misloading of the cassette tape is encountered in this position, press the Cassette Tape firmly into the Cassette Up Ass'y with the left thumb.

C. To Service the CCV C.B.A.

- 1) Remove the Rear Panel.
- 2) Press the CCV C.B.A. to the angle shown in diagram.
- 3) Unsolder the Shield Case -Bottom.
- 4) Service the CCV C.B.A. while pressing the CCV C.B.A. at angle shown in diagram.

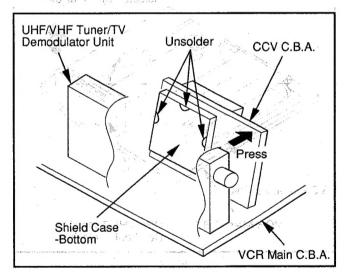


Fig. 2

D. How to Close the Mechanism Unit on the VCR Main C.B.A.

Align the Sensor LED with the hole in the Mechanism Chassis by gently pushing the Sensor LED backward with your hand. Refer to Fig. 3.

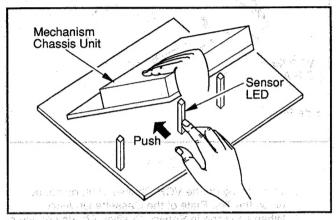


Fig. 3

E. Handling of the VCR Main C.B.A. when Servicing

DO NOT pull the VCR Main C.B.A. in the direction indicated by the arrow. **DO NOT** pull upward while holding the UHF/VHF Tuner/TV Demodulator Unit because you may crack the VCR Main C.B.A..

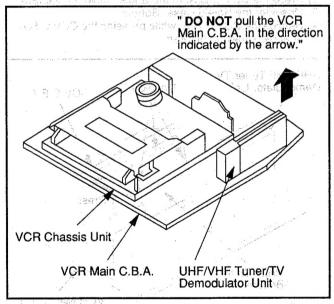


Fig. 4

F. Service of Capstan Motor Drive C.B.A.

When servicing, avoid touching IC2502 on the Capstan Motor Drive C.B.A. because it is **HOT** during normal operation.

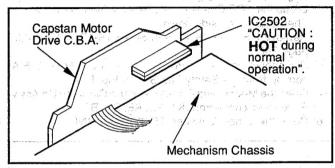


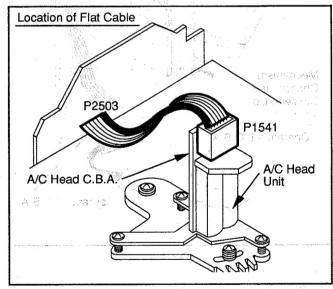
Fig. 5

G. Connection of the Flat Cable to Trap Connector

Plug No.	Location of Trap Connector	Туре
P2503-P1541	A/C Head Unit	Α
P7501-P7551	Operation I C.B.A.	Α
P1001-P1201	VCR Main C.B.A.	В

To the identify of Pin 1 of the Flat Cable, a different Color Identification Line is used.

To locate Pin 1 on the Trap Connector, find the pin 1 indicator on the Typical C.B.A.



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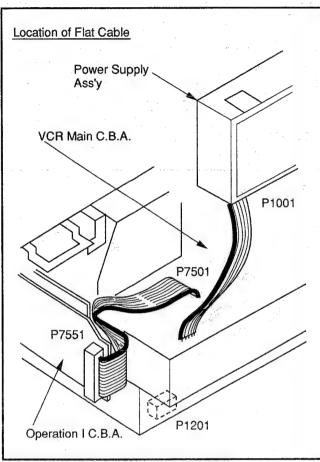


Fig. 6-2

(Removal or Installation of Flat Cable)

a. Removal

- Type A used in the A/C Head Unit and the Operation I C.B.A.
 - Pull out the Flat Cable. Minimize stress by holding it securely to avoid damage of the individual wires. (See Fig. 6-3)

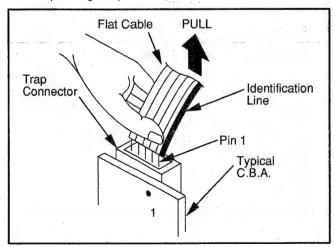


Fig. 6-3

2. Type B used in the VCR Main C.B.A.

 Pull out the Flat Cable while pushing against the a portion of the Trap Connector in the direction indicated by arrow to unplug as shown in Fig. 6-4.

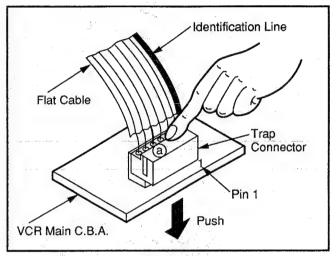


Fig. 6-4

Note:

After unplugging, make sure that the (a) portion of the Trap connector has returned to its original position.

b. Installation

- 1. Adjust the position of the Flat Cable so that the Identification Line on the Flat Cable aligns with Pin 1 of the Trap Connector in Fig. 6-3 and 6-4.
- Align the individual wire with its individual Trap Connector Hole. Then insert the Flat Cable wire into the Trap Connector.

Note:

After installation, inspect the Connection to ensure that an individual wire is not bent or touching another wire.

H. Removal/Installation of Mechanism Chassis to the VCR Main C.B.A.

Preparation

- Remove 2 Screws (S-10), 2 Screws (S-11), Screw (S-12), Screw (S-13), Screw (S-14) and Chassis Angle in Fig. D9, page 2-3.
- Remove 2 Screws (S-16) and Screw (S-17) in Fig. D10, page 2-4.
- Disconnect connector P6001 on the VCR Main C.B.A. coming from the Safety Tab SW. in Fig. D10.

a. Removal

Remove the Mechanism Chassis as follows.

- Lift up the right rear corner while holding the VCR Main C.B.A. to disconnect the right rear mechanism connector.
- Lift up the left rear corner while holding the VCR Main C.B.A. to disconnect the left rear mechanism connector.

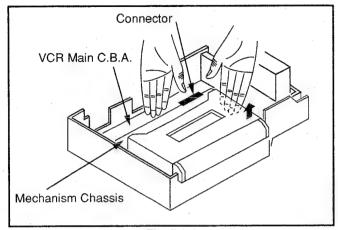


Fig. 7-1-1

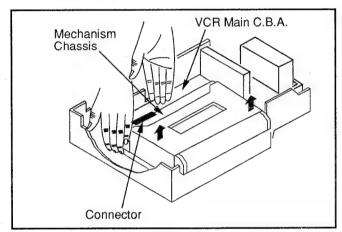


Fig. 7-1-2

b. Installation

Connect the Mechanism Chassis to the VCR Main C.B.A., as shown below. Be sure to press the rear portion of the mechanism chassis to insert connectors securely.

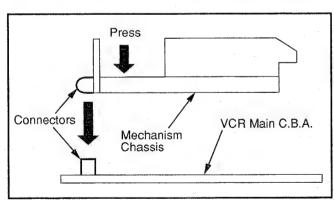


Fig. 7-2

Method for Manual Loading / Unloading of VCR

Turn the Loading Pulley of the Motor Block Ass'y (shown in Fig. 8) counterclockwise (for loading) or clockwise (for unloading) as viewed from the Front Side.

Note:

DO NOT apply +12V to the Terminals of Loading Motor Unit on the Motor Block Ass'y.

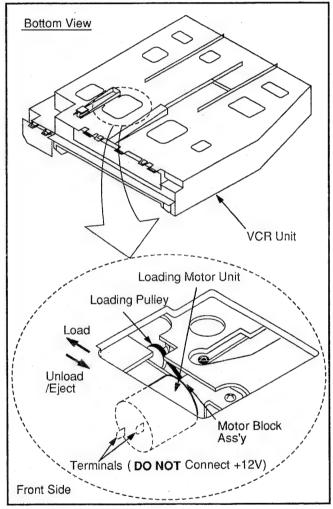


Fig. 8

J. How to remove a Jammed Tape

- Remove Back Cover Unit by removing 9 Screws (S-1) in Fig. D2, page 2-2.
- 2. Disconnect connector P4152, P3002 and P4153 : Model E, F, G, H in Fig. D5, page 2-2.
- Release A/C Cord and Lead Ass'y from Clamper on Top Shield Plate Ass'y in Fig. D6, page 2-3.
- Disconnect 3 connectors (K1, K2, K6) on TV Main C.B.A. and 2 connectors (B1,B2) on TV Power C.B.A. in Fig. D4, page 2-2.
- 5. Carefully pull out VCR Unit from TV Cavity.
- 6. Remove Top Shield Plate Ass'y by removing 2 Screws (S-6) and 2 Screws (S-7) in Fig. D6.
- 7. Remove Operation II C.B.A. by unlocking 2 Locking Tabs (L-6) in Fig. D8, page 2-3.
- Rotate Loading Pulley to unload the Mechanism from the bottom side of VCR Unit as shown in Fig. 8.
- 9. Turn Capstan Pulley counterclockwise from VCR hole as shown in Fig. 9 to wind the Tape Slack into the cassette.

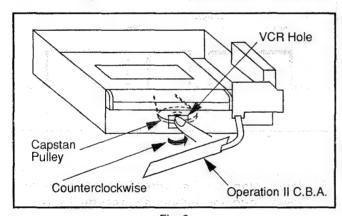


Fig. 9

K. Simplified Fault Finding Point

This model has a Simplified Self-Diagnostic System to facilitate finding the cause in case VCR stops accidentally and button operation can not be accessible.

Method 1

Press FF button on VCR to display Fault Code indication in OSD or LED as listed in Fig. 10-2.

Use LED indication when OSD indication can not be displayed.

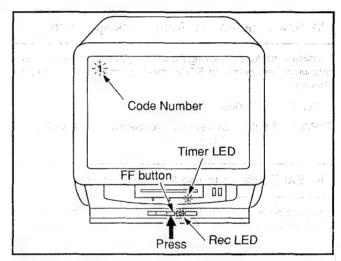


Fig. 10-1

The Simplified Fault finding data is memorized for approximately 24 hours.

This data is cleared after it is displayed with the FF button and then the Power button is pressed back on.

Method 2

Connect the oscilloscope probe to TP6002 on the Servo Section of the VCR Main C.B.A..

The signal at TP6002 indicates the trouble as listed in Fig. 10-2.

Note: Under normal conditions, a DC +5V Signal at TP6002 is displayed.

Information Style	Code No. (OSD)	LED	TP6002
Takeup Reel Lock		Timer LED lights up	Low Voltage 0V
Cylinder Lock	arth moinn	Rec LED lights up	0.3Hz Pulse (Duty 50%) 3.0Sec 5V 0V
Exceeds Loading/Unloading Time	3	Timer and Rec LED light up	0.75Hz Pulse (Duty 50%) 1.5Sec 5V 0V
Exceeds Cassette Loading/Unloading Time	4	Timer and Rec LED flash	Intermittent Pulse 350mSec 2Sec 5V 0V

L. Service Test Point (TP6001)

The detection of the Supply / Takeup Photo Transistors, Cassette Down, Reel Sensor and Cylinder Lock will be inhibited when TP6001 is grounded on the System Control Section of the VCR Main C.B.A.

Note:

If a Cassette Up Ass'y is removed and TP6001 is grounded, confirmation of Mechanism movement without a Tape is possible.

M. How to defeat the Auto Tracking Function

To defeat the Auto Tracking Function, place a jumper between following Test points in STOP mode to maintain the Neutral Position.

TP6003 ---- TP6009 (+5V)

TP6003, TP6009: System Control Section of the VCR Main C.B.A.

N. Set Tracking to the Neutral Position

Pressing eject and reinserting a Tape will access the Neutral Tracking position.

O. Microprocessor Judgement Point

This model has the Microprocessor judgement system to improve the accuracy of microprocessor replacement if the unit malfunctions.

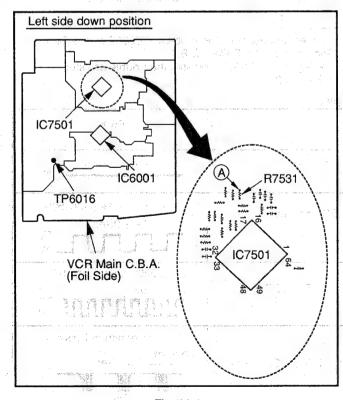


Fig. 11-1

IC6001 Judgment
 Use TP6016 on the VCR Main C.B.A as a check Terminal
 for judgment of the microprocessor. The microprocessor is
 OK if there is Scan pulse output. See Fig. 11-2.

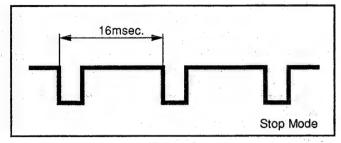


Fig. 11-2

IC7501 Judgment
 Use point (A) on the VCR Main C.B.A as a check Terminal
 for judgment of the microprocessor. The microprocessor is
 OK if there is chip select pulse output. See Fig. 11-3.

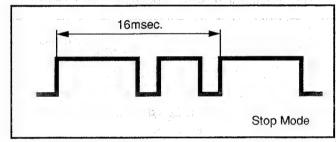


Fig. 11-3

P. How to place the Cassette Holder Ass'y in the Down Condition without a Cassette Tape

To place the Cassette Holder Ass'y in the down position without a cassette tape, use the following procedure.

Method 1 - Refer to Fig. 12

- 1. Disconnect AC Cord.
- 2. In the order described in the Disassembly of Cabinet Parts Section, remove the VCR Chassis Unit.
- 3. Place the Unit left side down.
- Remove Screw (A) and lift (Do Not Remove) the Grounding Plate to access the right side First Locking Tab.
- 5. Turn the Loading Pulley counterclockwise (Front View) until the Top of Set Lever L and R is locked by the First Locking Tab (Left and Right).
- Clear the First Locking Tab (Left and Right) by pressing down the top of the Set Lever L and R.
- 7. Turn the Loading Pulley counterclockwise (Front View) until the top of Set Lever L and R is locked by the Second Locking Tab (Left and Right).
- 8. Clear the Second Locking Tab (Left and Right) by pressing down the Top of the Set Lever L and R.
- Continue to turn the Loading Pulley until the Cassette Down Position is obtained.

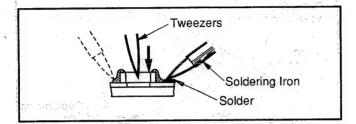


Fig. 14-3

Note:

Do not glue the replacement leadless component to the circuit board.

Y. Special Note

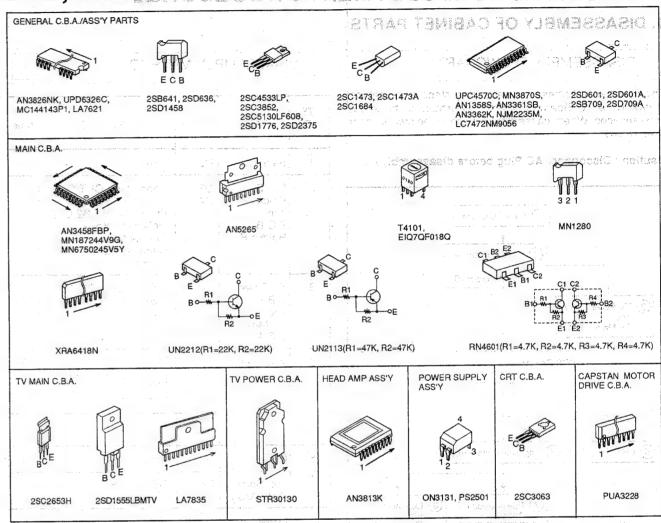
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

Use this cross reference chart to determine the equivalent model used in the Summary, Adjustment Procedures, Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List.

MODEL	MARK
PV-M1324	
PV-M1324W	В
VV134	C
VV134W	D
PV-M2024	E
VV204	F
VV204W	G
PV-M2044	. H [↑]
NOT USED	Z
The second secon	2 4

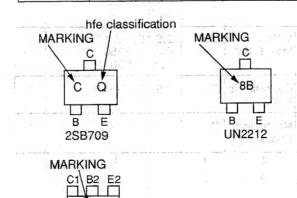
Note: Refer to Item 7 of Schematic and C.B.A. Diagram Notes, Page 3-2 for mark "Z".

C. IC, TRANSISTOR AND CHIP PART INFORMATION



HOW TO READ THE IDENTIFICATION MARK OF CHIP COMPONENTS.

 	and the second	L 1 3011	1 (11,24,24,24)
MARKING	PART NO.	MARKING	PART NO.
Α	2SB709	VA	RN4601
В	2SB709A	6C	UN2113
Υ	2SD601	8B	UN2212
Z	2SD601A		val aprijitu



E1 B1 C2 RN4601

HOW TO READ THE VALUES OF THE CYLINDRICAL TYPE CHIP COMPONENTS.

RIMICOCOPETVINOTELLOA I

The widest color band must be read first for value.

(a)RESISTOR
There are two types(ERD10LLJ... and ERD10TLJ...)of

chip parts.

1) ERD10LLJ: Refer to above type.

2) ERD10TLJ: The narrow color band must be read first for value.

If this part is included in the parts list, be sure that the color band is read properly when servicing.

(b)CAPACITOR

Because of the width of the color bands, the reading direction cannot be specified. However, the color band can be read on either side. Be sure to confirm the value

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CAUTION: Once and monther and decreased and W Once chip parts are removed, they must not be reused. Always use a new part when installing a chip part.

using the schematic diagram.

1-16

II. ADJUSTMENT PROCEDURES

A. MECHANICAL ADJUSTMENT PROCEDURES

1. DISASSEMBLY OF CABINET PARTS

1. DISASSEMBLY FLOWCHART

This flowchart indicates the disassembly steps of the cabinet parts and the P.C. Boards in order to gain access to the item(s) to be serviced. When reassembling, perform the step(s) in the reverse order.

Caution: Disconnect AC Plug before disassembly.

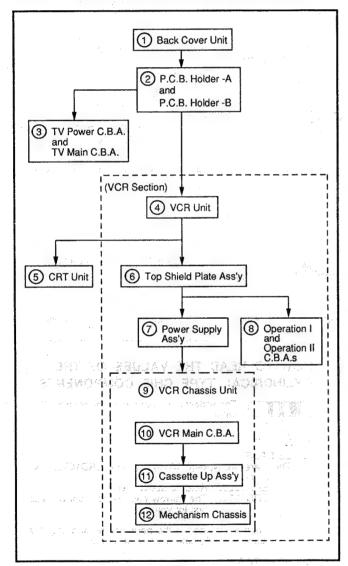


Fig. D1

How to read chart shown above :

(A): Order of steps in Procedure
When reassembling, perform the step(s) in the reverse
order.

These numbers are also used as the identification (location) No. of parts in Figures.

- B: Part to be removed or installed.
- ©: Fig. No. showing Procedure or Part Location.
- (D): Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered. 9(S-1)=9 Screws (S-1); (L-1)=Locking Tab (L-1)

2. DISASSEMBLY METHOD

				- 2
STEP /LOC. No.	PART	Fig. No.	REMOVE	Note
1	Back Cover	D2	9(S-1)	
2	P.C.B. Holder-A and P.C.B. Holder-B	D3, D4	Anode Cap,CRT C.B.A. Connectors (K1,K2,K6,B1,B2,C12), Deflection Yoke Connector, Degaussing Coil Connector	1
3	TV Power C.B.A. and TV Main C.B.A.	D4	2(S-2), (L-1), 2(L-2), 2(S-3), 2(L-3), (S-4), 2(L-4)	2
4	VCR Unit	D5	P4152, Model : E, F, G, H P3002, P4153	3
		D12-1 D12-2		За
(5)	CRT Unit	D3	4(S-5)	4
6	Top Shield Plate Ass'y	D6	2(S-6), 2(S-7)	
7	Power	D7	P1201, (S-8), (S-9)	
\$4.7	Supply Ass'y	4.190	3(L-5)	5
8	Operation I and Operation II C.B.A.s	. D8	3(L-6), P7551	ART
9	VCR Chassis Unit	D9	2(S-10),2(S-11),(S-12), (S-13), (S-14), (S-15), Chassis Angle, 3(L-7)	6
10	VCR Main C.B.A.	D10	2(S-16), (S-17), P4101, P3501, P2501, P6001	
1	Cassette Up Ass'y	D11	2(S-18), 2(S-19)	7
12	Mechanism Chassis	D11		8

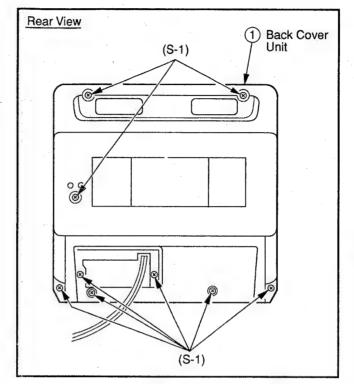


Fig. D2

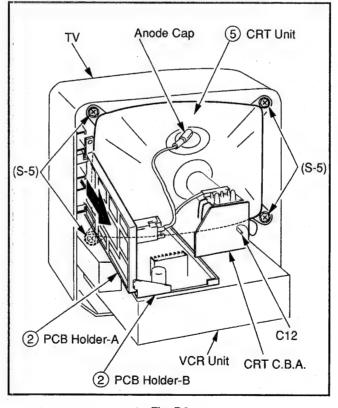


Fig. D3

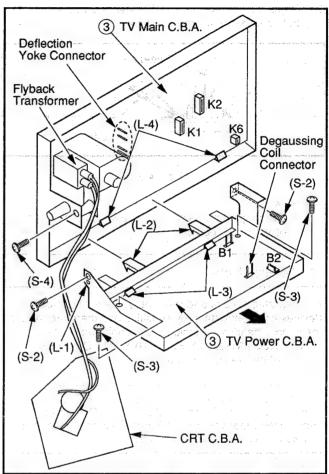


Fig. D4

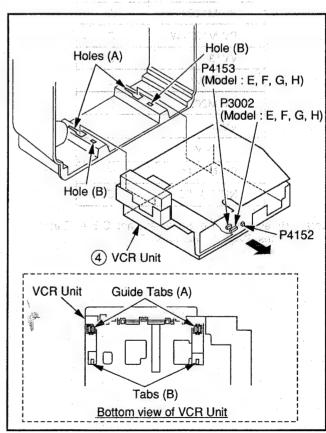
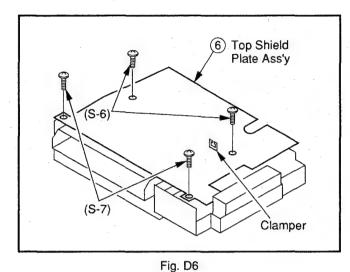


Fig. D5

. .



(S-9)

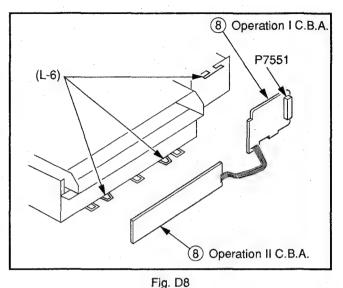
Lug Ass'y

P1201

Fig. D7

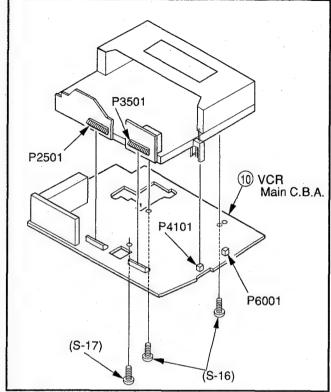
(7) Power Supply Ass'y

(S-8).

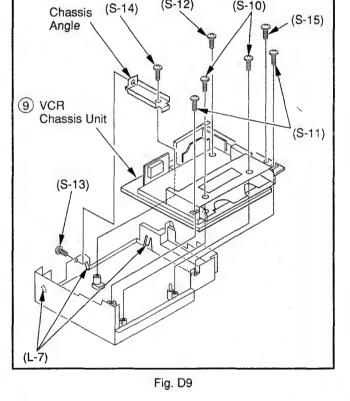


(S-12)

(S-10)







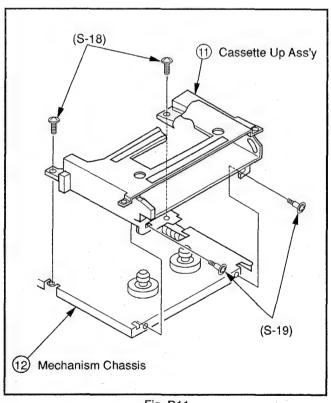


Fig. D11

Reference <Notes> in Table 2:

- 1. To remove P.C.B. Holder -A and P.C.B. Holder-B from TV Cavity, proceed with following steps,

 1) Discharge Anode to CRT Ground. Then remove the
- Anode Cap.
- Disconnect connector (C12) on CRT C.B.A..
 Carefully pull out CRT C.B.A. from CRT Unit.
- 4) Disconnect Deflection Yoke Connector on TV Main C.B.A. and Degaussing Coil Connector on TV Power C.B.A.
- 5) Disconnect connectors (K1, K2, K6) on TV Main C.B.A. coming from VCR Main C.B.A. and connector (B1) on TV Power C.B.A. coming from VCR Main C.B.A. and connector (B2) on TV Power C.B.A. coming from Power Supply Ass'y.
- 6) Carefully pull out P.C.B. Holder -A and P.C.B. Holder -B. 2. To remove TV Power C.B.A. from P.C.B. Holder-B, proceed with following steps,
- 1) Remove 2 Screws (S-2).
- 2) Remove P.C.B. Holder-B from P.C.B. Holder-A by unlocking Locking Tab (L-1) and 2 Locking Tabs (L-2).
- 3) Remove 2 Screws (S-3).
 4) Remove TV Power C.B.A. from P.C.B. Holder-B by unlocking 2 Locking Tabs (L-3).

 To remove TV Main C.B.A from P.C.B. Holder -A, proceed
- with following steps,
- 1) Remove Screw (S-4).
 2) Remove TV Main C.B.A. from P.C.B. Holder-A by
- unlocking 2 Locking Tabs (L-4).

 3. To remove VCR Unit from TV Cavity, proceed with following
- 1) Lift up the rear side of VCR Unit slightly to raise Tabs (B).
- 2) Slide VCR Unit out as far as you can.
- 3) Push up front side of VCR Unit from underneath in order to raise 2 Guide Tabs (A) into place.
- 4) Pull VCR Unit all the way out from TV Cavity.

3a. When reinstalling:

- Ensure that the VCR Unit is mounted all the way to the Front before reinstalling the TV Assembly as shown in Fig. D12-1: : Model A, B, C, D or Fig. D12-2: Model E, F, G, H
- 4. Place unit face down on a soft cloth before removing the CRT Unit.
- 5. When removing the Shield Case of the Power Supply Ass'y, twist and straighten 3 Locking Tabs (L-5) on the Power Supply Ass'y in Fig. D7. Then remove the Shield Case by pulling it away from the Power Supply Ass'y.
- 6. When removing the VCR Chassis Unit, refer to SERVICE NOTES AND CAUTIONS Item B-2.
- 7. When reinstalling the Cassette Up Ass'y, mechanical adjustment (alignment) should be performed for proper operation. Please refer to Adjustment of Cassette Up Ass'y
- When reinstalling the Mechanism Chassis to the VCR Main C.B.A., refer to SERVICE NOTES AND CAUTIONS Item H.

Mod€

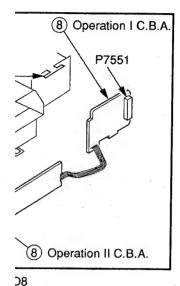
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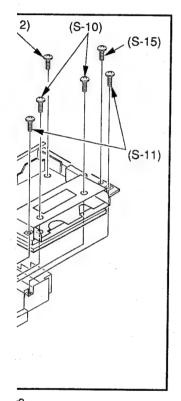
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Mode

P(

B





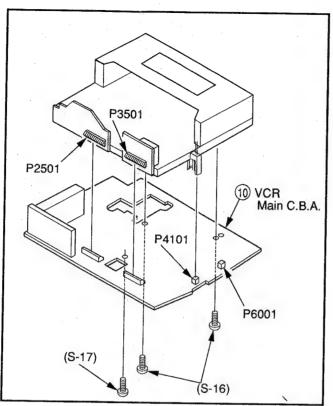


Fig. D10

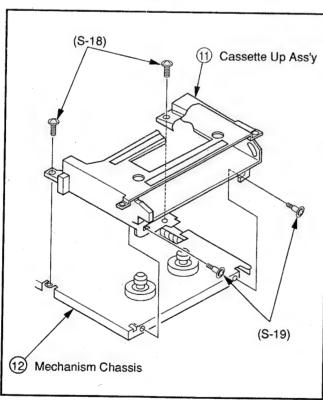


Fig. D11

Reference <Notes> in Table 2:

- 1. To remove P.C.B. Holder-A and P.C.B. Holder-B from TV Cavity, proceed with following steps,
 - 1) Discharge Anode to CRT Ground. Then remove the Anode Cap.
- Disconnect connector (C12) on CRT C.B.A..
 Carefully pull out CRT C.B.A. from CRT Unit.
- 4) Disconnect Deflection Yoke Connector on TV Main C.B.A. and Degaussing Coil Connector on TV Power C.B.A.
- 5) Disconnect connectors (K1, K2, K6) on TV Main C.B.A. coming from VCR Main C.B.A. and connector (B1) on TV Power C.B.A. coming from VCR Main C.B.A. and connector (B2) on TV Power C.B.A. coming from Power Supply Ass'y.
- 6) Carefully pull out P.C.B. Holder A and P.C.B. Holder B. 2. To remove TV Power C.B.A. from P.C.B. Holder-B, proceed with following steps,
- Remove 2 Screws (S-2).
 Remove P.C.B. Holder-B from P.C.B. Holder-A by unlocking Locking Tab (L-1) and 2 Locking Tabs (L-2).
- 3) Remove 2 Screws (S-3).
- 4) Remove TV Power C.B.A. from P.C.B. Holder-B by unlocking 2 Locking Tabs (L-3).
 To remove TV Main C.B.A from P.C.B. Holder -A, proceed
- with following steps.
- 1) Remove Screw (S-4).
 2) Remove TV Main C.B.A. from P.C.B. Holder-A by unlocking 2 Locking Tabs (L-4).

 3. To remove VCR Unit from TV Cavity, proceed with following
- Lift up the rear side of VCR Unit slightly to raise Tabs (B).
 Slide VCR Unit out as far as you can.
- 3) Push up front side of VCR Unit from underneath in order to raise 2 Guide Tabs (A) into place.
- 4) Pull VCR Unit all the way out from TV Cavity.

3a. When reinstalling:

- Ensure that the VČR Unit is mounted all the way to the Front before reinstalling the TV Assembly as shown in Fig. D12-1: : Model A, B, C, D or Fig. D12-2 : Model E, F, G, H
- 4. Place unit face down on a soft cloth before removing the CRT Unit.
- 5. When removing the Shield Case of the Power Supply Ass'y, twist and straighten 3 Locking Tabs (L-5) on the Power Supply Ass'y in Fig. D7. Then remove the Shield Case by pulling it away from the Power Supply Ass'y.
- 6. When removing the VCR Chassis Unit, refer to SERVICE NOTES AND CAUTIONS Item B-2.
- 7. When reinstalling the Cassette Up Ass'y, mechanical adjustment (alignment) should be performed for proper operation. Please refer to Adjustment of Cassette Up Ass'y and Chassis.
- 8. When reinstalling the Mechanism Chassis to the VCR Main C.B.A., refer to SERVICE NOTES AND CAUTIONS Item H.

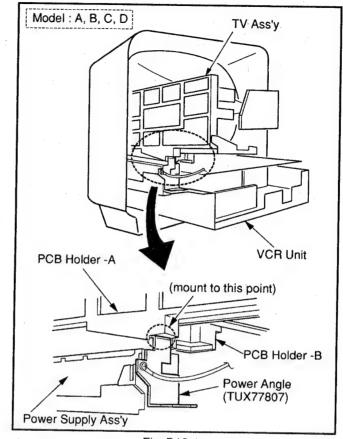


Fig. D12-1

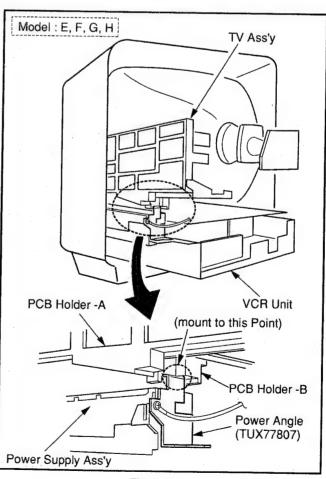


Fig. D12-2

!. PROCEDURE FOR CLEANING UPPER CYLINDER UNIT

- Position the Video Head to permit access for cleaning. Hold the Upper Cylinder to keep it from turning while cleaning it.
- Gently rub the Video Heads in the direction of tape travel with a Head Cleaning Stick (VFK27) moistened with Ethanol.
- . Repeat for the other Video Heads.

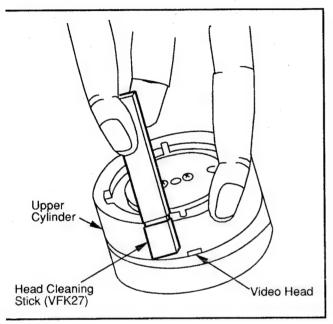


Fig. M1

Note:

- 1. Do not rub vertically.
- Do not apply any pressure to the head.
 If contaminant is not easily removed, continued gentle wiping will usually remove it.
- 3. Clean the Cylinder surface with Ethanol if fingerprints are present after cleaning the Video Heads.

3. ADJUSTMENT PROCEDURES

1. REPLACEMENT OF UPPER CYLINDER UNIT

1-1. REMOVAL OF UPPER CYLINDER UNIT

Work with extreme care when removing or replacing the Upper Cylinder Unit. Do not touch Video Heads during servicing.

 Remove 2 Screws with Washers (A) and gently lift the Upper Cylinder Unit from the shaft.

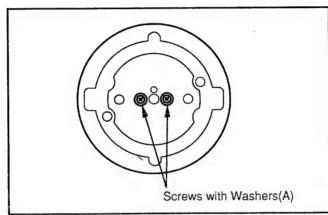


Fig. M2

1-2. CLEANING OF D.D. CYLINDER SHAFT AND THE SURFACE

 Before reinstalling a new unit, clean the D.D. Cylinder Shaft and the surface that engages with the Upper Cylinder with a soft cloth dampened with Ethanol in Fig. M3.

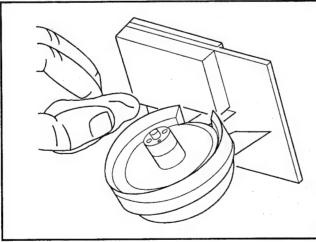


Fig. M3

1-3. REPLACEMENT OF UPPER CYLINDER

 Install the new Upper Cylinder Unit carefully so that the hole in the new Upper Cylinder Unit is properly matched to align the hole on the Upper Cylinder to the center of the indentation on the D.D. Cylinder. For details on the installation position, refer to Fig. M4.

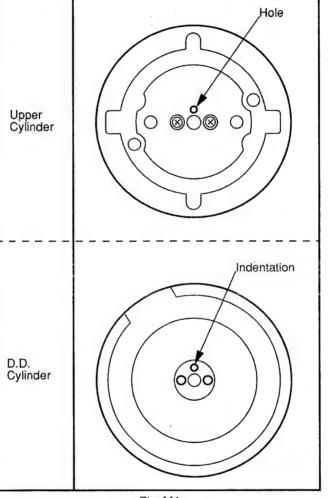


Fig. M4

 Tighten 2 Screws with Washers (A) shown in Fig. M2.
 Clean the Upper Cylinder with a deerskin swab (Head Cleaning Stick) saturated with Ethanol.

Note

Upon completion of replacement, perform "TAPE INTERCHANGEABILITY ADJUSTMENT," especially "HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD."

2. REPLACEMENT OF D.D. CYLINDER UNIT

Work with extreme care when removing or replacing the D.D. Cylinder Unit. Do not touch Video Heads during servicing.

- 1. Remove the VCR Chassis Unit.
- 2. Remove the VCR Main C.B.A.
- Place the Mechanism Chassis and Cassette Up Ass'y upside down.
- 4. Remove Black Screw (A) and the Earth Plate Unit.
- 5. Remove 3 Screws (B)
- Place the Mechanism Chassis and Cassette Up Ass'y in a normal position.
- 7. Remove 2 Screws (C) and then lift the D.D. Cylinder Unit and Head Amp Ass'y slowly from the top side.

Note:

Since there is very little clearance between the D.D. Cylinder Unit and the chassis, remove the D.D. Cylinder Unit gently and carefully.

- Unsolder P3502 and P3503 on the Head Amp Ass'y and then remove the Head Amp Ass'y from the D.D. Cylinder Unit.
- Place the Mechanism Chassis and the Cassette Up Ass'y upside down.

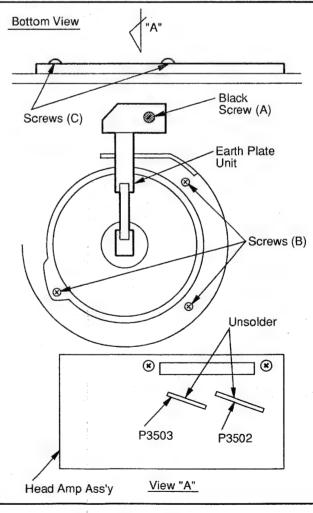


Fig. M5-1

 Reinstall the new D.D. Cylinder Unit on to the chassis by reversing the procedure previously described.

Note:

 Reinstall the new projections on the C lower surface of the Cylinder Unit to the Fig. M5-2). Hold the as not to touch the Cylinder. If any of them with a deer saturated with Etha



- 2. Upon completion of sure that the D.D. maintenance is re-INTERCHANGEA (VFMS0001H6).
- Adjustment of the installation. Refer

3. CONFIRMATION PLATE INSTA

Purpose :

To optimize the posit

Symptom of Misadjustn May cause Cylinder

Remove the Mechanism see if the Earth Plate Ur than 1mm (but not mor center of the plate to the in Fig. M6. If required, a loosening Black Screw

Note:

Never install the Ear (on the left side of th always within a maxi center of this shaft. 1DER

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SHAFT

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1-3. REPLACEMENT OF UPPER CYLINDER

 Install the new Upper Cylinder Unit carefully so that the hole in the new Upper Cylinder Unit is properly matched to align the hole on the Upper Cylinder to the center of the indentation on the D.D. Cylinder. For details on the installation position, refer to Fig. M4.

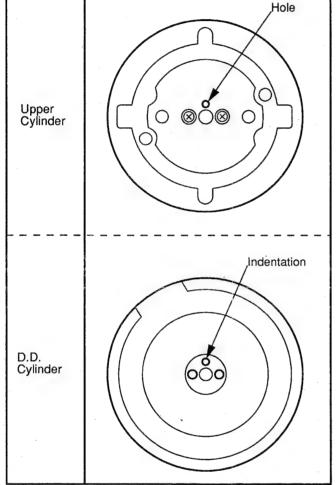


Fig. M4

2. Tighten 2 Screws with Washers (A) shown in Fig. M2.

Clean the Upper Cylinder with a deerskin swab (Head Cleaning Stick) saturated with Ethanol.

Note:

Upon completion of replacement, perform "TAPE INTERCHANGEABILITY ADJUSTMENT," especially "HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD."

2. REPLACEMENT OF D.D. CYLINDER UNIT

Work with extreme care when removing or replacing the D.D. Cylinder Unit. Do not touch Video Heads during servicing.

- 1. Remove the VCR Chassis Unit.
- 2. Remove the VCR Main C.B.A.
- Place the Mechanism Chassis and Cassette Up Ass'y upside down.
- 4. Remove Black Screw (A) and the Earth Plate Unit.
- 5. Remove 3 Screws (B).
- Place the Mechanism Chassis and Cassette Up Ass'y in a normal position.
- Remove 2 Screws (C) and then lift the D.D. Cylinder Unit and Head Amp Ass'y slowly from the top side.

Note:

Since there is very little clearance between the D.D. Cylinder Unit and the chassis, remove the D.D. Cylinder Unit gently and carefully.

- Unsolder P3502 and P3503 on the Head Amp Ass'y and then remove the Head Amp Ass'y from the D.D. Cylinder Unit.
- Place the Mechanism Chassis and the Cassette Up Ass'y upside down.

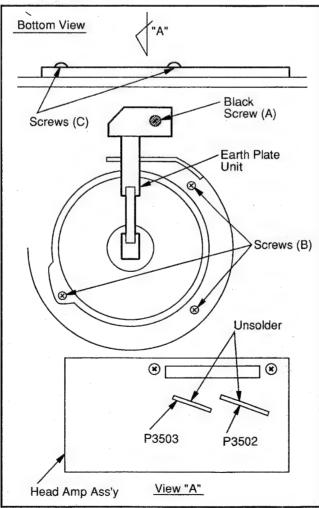


Fig. M5-1

 Reinstall the new D.D. Cylinder Unit on to the chassis by reversing the procedure previously described.

2-7

Note:

Reinstall the new D.D. Cylinder Unit so that the 2 projections on the Cylinder Base meet the 2 holes on the lower surface of the D.D. Cylinder. Then fit the new D.D. Cylinder Unit to the chassis by turning it (refer to Fig. M5-2). Hold the D.D. Cylinder with extreme care so as not to touch the Heads or the tape path on the Cylinder. If any of these parts are touched, then clean them with a deerskin swab (Head Cleaning Stick) saturated with Ethanol.

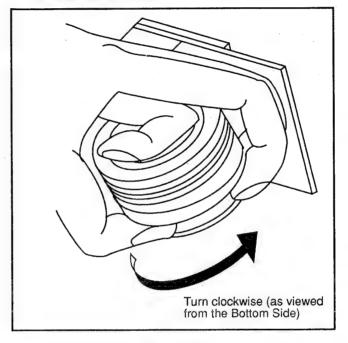


Fig. M5-2

- Upon completion of the replacement procedure, be sure that the D.D. Cylinder Unit works. If any further maintenance is required, perform "TAPE INTERCHANGEABILITY" with the alignment tape (VFMS0001H6).
- Adjustment of the Earth Plate Unit is required after installation. Refer to Item 3 below.

3. CONFIRMATION OF GROUNDING PLATE INSTALLATION POSITION

Purpose

To optimize the position of the Earth Plate Unit.

Symptom of Misadjustment:

May cause Cylinder rotating buzz.

Remove the Mechanism Unit. Place it upside down. Check to see if the Earth Plate Unit is properly set in a position just less than 1mm (but not more than 1mm), as measured from the center of the plate to the center of the Cylinder Shaft as shown in Fig. M6. If required, adjust the Earth Plate Unit position by loosening Black Screw (A).

Note

Never install the Earth Plate Unit in the opposite position (on the left side of the center of the Cylinder Shaft), but always within a maximum of 1mm to the right side of the center of this shaft.

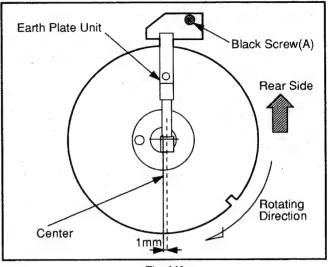


Fig. M6

4. POSITION ADJUSTMENT OF TENSION POST (PRELIMINARY)

Purpose:

To feed a constant tension to the tape so that the tape runs with stability, by performing a preliminary adjustment.

Symptom of Misadjustment:

- If the adjusted value is below the specification, the tape tension is not sufficient, thus causing a tape slack to occur.
- If the adjusted value is above the specification, the tape tension is too high, thus causing tape damage to occur.

*Equipment Required :

2mm Hex. Wrench(Purchase Locally)

- 1. Place the Unit in the Service Position (1).
- 2. Then remove the Cassette Up Ass'y
- 3. Place a jumper between TP6001 and GND.
- 4. Turn ON the Power Switch and press the Play Button to complete the loading operation sequence.
- As soon as loading is completed, insert the Hex. Wrench(2mm) into the Tension Band Fastener and adjust it (only counterclockwise) as indicated by the arrow so that the outside edge of the Tension Post lines up with the outside of the P1 post. (See Fig. M7)
- 6. Remove the Hex. Wrench (2mm).
- Press the Stop/Eject Button to complete the unloading operation Sequence.
- 8. Remove the jumper between TP6001 and GND.
- 9. Reinstall the Cassette Up Ass'y and cabinet parts.

8-C. CONFIRMATION OF TILT OF A/C HEAD

Purpose:

To confirm that the tape runs is smoothly. In particular, confirm that the tape properly picks up the Audio Signal at the upper part of the head and the Control Signal at the lower part of the head.

Symptom of Misadjustment:

If the tilt of the A/C Head is poorly adjusted, the tape will eventually be damaged. An intermittent Blue screen may be seen in Playback.

- Play back a T120 Cassette tape and confirm that the tape runs properly between the lower and upper limits of the P4 post. Also confirm that the tape runs smoothly.
- If adjustment is required, turn Black Screw (B), shown in Fig. M13, clockwise until curling is apparent at the lower edge of P4. Then turn Black Screw (B) counterclockwise until the curling smooths out.

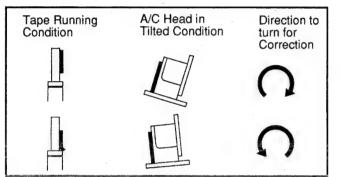


Fig. M14

8-D. AZIMUTH ADJUSTMENT OF A/C HEAD

Purpose

To adjust the position and height of the A/C Head so that it meets the tape tracks properly.

Symptom of Misadjustment:

If the position of the A/C Head is not properly adjusted, the Audio S/N Ratio is poor.

- Connect the oscilloscope to the audio output jack on the rear side of the deck.
- 2. Play back the monoscope portion (6KHz, Mono) of the alignment tape (VFMS0001H6).
- 3. Adjust Black Screw (C) on the head base, shown in Fig. M13, so that the output level is at maximum.

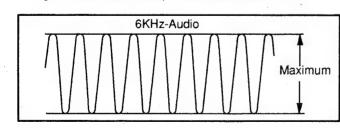


Fig. M15

- Readjust Black Screw (A), shown in Fig. M13, for maximum output.
- Disconnect the oscilloscope.

8-E. HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD

Purpose:

To adjust the Horizontal Position of the A/C Head.

Symptom of Misadjustment:

If the Horizontal Position of the A/C Head is not properly adjusted, a maximum envelope cannot be obtained at the Neutral Position of the Tracking Control Circuit.

Place a jumper between TP6003 and +5V(TP6009) on the System Control Section of the VCR Main C.B.A. to defeat Auto Tracking.

- Eject the tape and insert it again, to access the Neutral Tracking position. Connect the oscilloscope to TP3002 on the Video Signal Process Section of the Main C.B.A. Use TP6205 as a trigger.
- Play back the monoscope portion of the alignment tape (VFMS0001H6) and confirm that the RF envelope appears, as in Fig. M17-1.
- If adjustment is required, loosen the Black Screw with 2 Washers (D) and tighten the Screw lightly. Set the H-Position ADJ. Screwdriver into the Hole (E) shown in Fig. M16. Then slowly turn the fixture either clockwise or counterclockwise so that the envelope is at maximum.

Model : A, B, C, D, E, F, G

- 4. Tighten the Black Screw with 2 Washers (D).
- Remove the Jumper between TP6003 and +5V(TP6009).
 Model: H
- 4. Before finding the center of the maximum period of the envelope, rotate the fixture back and forth slightly to confirm the limits on either side of the maximum period.
- Push the Tracking Control Up Button (on the IR Transmitter) several times (count the number of times pushed) until the maximum envelope is reduced to 1/2.
- Reset the tracking to the neutral position by ejecting the tape and reinserting it. Push the Tracking control DOWN Button (on the IR Transmitter) several times (count the number of ties pushed) until the maximum envelope is reduced to 1/2.
- 7. If the number of pushes is not the same, then loosen the Black Screwwith 2 Washers (D) and set the H-Position ADJ. Screwdriver into the Hole (E) shown in Fig. M16. Then find the center point. Then repeat the above procedure to determine the center point.
- 8. Tighten the Black Screw with 2 Washers (D).
- 9. Remove the Jumper between TP6003 and +5V(TP6009).

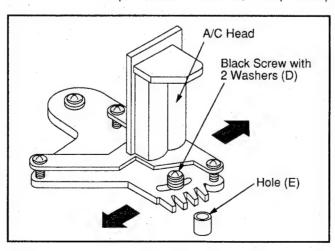


Fig. M16

8-F. CONFIRMATION/ADJUSTMENT OF ENVELOPE OUTPUT

Purpose:

To achieve a satisfactory picture and secure precise tracking.

Symptom of Misadjustment:

If the envelope is output poorly, much noise will appear in the picture. Then the tracking will lose precision and the playback picture will be distorted by any slight variation of the tracking control circuit.

Place a jumper between TP6003 and +5V(TP6009) on the System Control Section of the VCR Main C.B.A. to defeat Auto Tracking.

- Eject the tape and insert it again, to access the Neutral Tracking position. Connect the oscilloscope to TP3002 on the Video Signal Process Section of the VCR Main C.B.A. Use TP6205 as a trigger.
- Play back the monoscope portion of the alignment tape (VFMS0001H6). Adjust the height of posts P2 and P3 while watching the scope display so you can make the envelope as flat as possible. (V1/V-max≥0.7, V2/V-max≥0.8)

If adjustment is required, turn the top of the post with a Post Adjustment Screwdriver. For adjustment of P2 and P3, refer to Item 8-A and its Note.

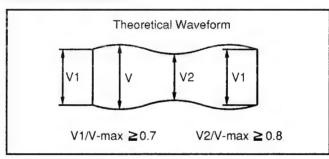


Fig. M17-1

 When the scope display is as shown in Fig. M17-2, adjust the height of P2 so that the waveform looks like the one shown in Fig. M17-4.

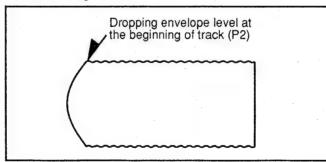


Fig. M17-2

 When the scope display is as shown in Fig. M17-3, adjust the height of P3 so that the waveform looks like the one shown in Fig. M17-4.

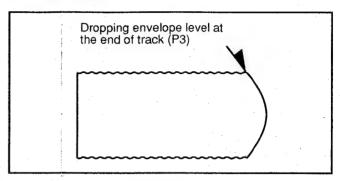


Fig. M17-3

5. When P2 and P3 are adjusted properly, there is no Envelope Drop at the beginning or end of the track as shown in Fig. M17-4. Remove the jumper wire.

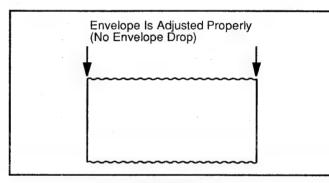


Fig. M17-4

Note

Upon completion of the adjustment of P2 and P3, tighten the Black Lock Screws on P2 and P3 using the Lock Screw Wrench. Then confirm the Horizontal Position of the A/C Head by pushing the Tracking Control Up or Down Buttons alternately, using the IR Wireless Transmitter Unit, to check the symmetry of the envelope. If required, perform "Horizontal Position Adjustment of A/C Head.

9. ADJUS

Purpose : To properly

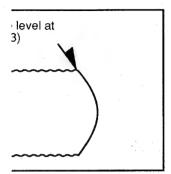
Symptom of Mis If the FG Sig cannot be ac

- * Equipment Re Oscilloscope
- * Specification
- 1. Remove the down.
- 2. Remove the
- 3. Slightly loose (#1 or #2 Ph Fig. M18. Tu FG Head tou the clearance
- 4. Tighten 2 Bla
- 5. Reinstall the



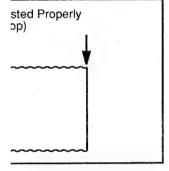
Note:

Do not to surface wi shown in Fig. M17-3, adjust aveform looks like the one



7-3

d properly, there is no ng or end of the track as the jumper wire.



7-4

9. ADJUSTMENT OF FG HEAD GAP

Purpose:

To properly pick up the FG Signal.

Symptom of Misadjustment:

If the FG Signal is not properly picked up, Servo Operation cannot be achieved.

* Equipment Required : Oscilloscope

- Remove the VCR Chassis Unit and then place it upside down.
- 2. Remove the VCR Main C.B.A.
- Slightly loosen 2 Black Screws (A) and set the Screwdriver (#1 or #2 Phillips Driver) into the Hole (B) shown in Fig. M18. Turn the screwdriver counterclockwise until the FG Head touches the rotor. Then turn it slightly clockwise to the clearance as specified.
- 4. Tighten 2 Black Screws (A) shown in Fig. M18.
- 5. Reinstall the VCR Main C.B.A.

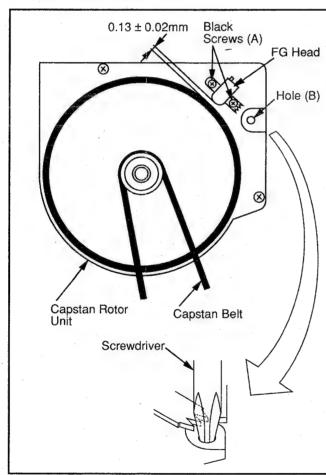


Fig. M18

Note:

Do not touch the outside circumference of the rotor surface with any tool and keep magnetic material away from the rotor magnet (especially metal particles). (Confirmation)

- Supply a Video Signal to the Video Input Jack on the rear side of the deck.
- Insert a cassette tape and place the unit in SLP recording mode.
- Connect the oscilloscope to Pin 12 and 13 of P2502 on the Capstan Motor Drive C.B.A.
 Confirm that the signal level is greater than 10mVp-p.

REPLACEMENT OF CAPSTAN ROTOR OR STATOR UNIT

- 1. Remove the Capstan Belt (Fig. M18).
- In the order described in the Disassembly and Assembly Procedures of Mechanism section, remove the Motor Block Ass'y.
- Carefully pull out the Capstan Rotor Unit. Be careful not to lose the 2 Oil Seals shown in Fig. M19.

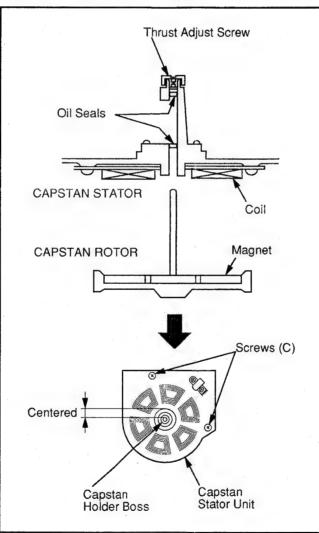


Fig. M19

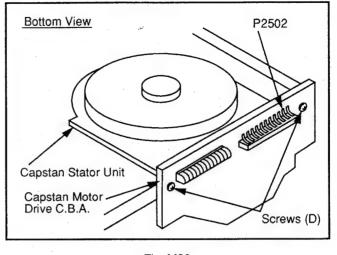


Fig. M20

- Carefully unsolder P2502 on the Capstan Motor Drive C.B.A. Then remove the Capstan Motor Drive C.B.A. by removing 2 Screws (D) shown in Fig. M20.
- Remove 2 Screws (C) and then lift out the Capstan Stator Unit.
- Install the new Capstan Stator Unit and then tighten 2 Screws (C).

Note:

When reinstalling the Capstan Stator Unit, the Capstan Holder Boss must be centered within the hole in the Capstan Stator Unit.

- Before installing the new Capstan Rotor Unit, loosen the Thrust Adjust Screw completely.
- Install the new Capstan Rotor, carefully inserting the Oil Seals as shown in Fig. M19.

Important : See Caution Note below.

Caution Note:

- The replacement Capstan Rotor Unit is available only as a complete unit with a spring loaded Capstan Pulley
- 2) Hold the new Capstan Rotor Unit firmly when installing it, so the rotor will not be pulled toward the stator too quickly (due to magnetic force). Placing some paper on the coils before rotor installation may prevent accidental damage to the coils if the above caution is not observed.
- During installation, do not touch the Capstan Shaft with any hard material like drivers or tweezers.
- Re-install the Capstan Motor Drive C.B.A. by tightening 2 Screws (D). Then carefully solder P2502 and re-install the Motor Block Ass'y.

- ----- ADJUSTMENT OF THRUST ADJUST SCRE AND OIL SEALS ------
- Re-install the Capstan Belt and, while exerting preto turn the Clutch Unit, tighten the Thrust Adjust S slowly until the Capstan Rotor just starts turning.
- At the point where the Capstan Rotor starts turnin tighten the Thrust Adjust Screw another 180° clock
- 12. Upon completion of the above procedure, confirm the Oil Seals are positioned as shown in Fig. M21 and sure that the oil seal does not contact the Pressur Roller or P5 Arm Unit. Then, wipe off the Capstan Shaft to remove oil, grease, and dust.

Note:

- During production, the Lower Oil Seal is posit 6mm above the bushing as shown in Fig. M21. servicing, the seal should be either 6mm or ju above the bushing.
- Clean the Capstan Post whenever an Oil Sea moved.

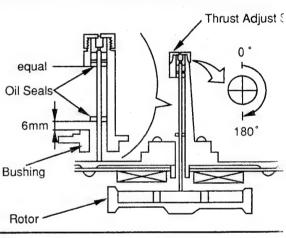


Fig. M21

11. DISASSEMBLY/ASSEMBLY PROCEDURES OF **MECHANISM**

This procedure starts with the cabinet parts, VCR Main C.B.A., and Cassette Up Ass'y already removed. Also, all the following procedures for adjustment and parts replacement should be done in EJECT Mode. When reassembling, follow the step(s) in reverse order.

STEP /LOC. No.	START -ING No.	PART		Fig. No.	REMOVE	INSTALLATION (ADJUSTMENT INFORMATION)
1	1	PINCH CAM CAP	T	DM1 DM3	(L-1)	
2	1	PRESSURE ROLLER ARM UNIT	T	DM1 DM3	<note 1=""></note>	(+)
3	1	P5 SECTOR GEAR	T	DM1 DM4	(C-1), <note 2=""></note>	(+) See Alignment Procedure for Mechanism, Item 12-5.
4	3	PINCH CAM	ΙT	DM1 DM3		(+) See Alignment Procedure for Mechanism, Item12-5.
5	4	P5 ARM UNIT	T	DM1 DM4	(N-1), (W-1), (P-1)	(+) See Height Adjustment P5 Arm Unit.
6	6	A/C HEAD UNIT	ΙŢ	DM1 DM5	(S-1), (S-2), 2(W-2) (W-3), (W-4),P1541	(+) See Horizontal Position Adjustment of A/C Head.
7	7	OPENER ANGLE	T	DM1 DM6	(S-3), (S-4), (S-5)	
8	7	CAM FOLLOWER ARM UNIT	T	DM1 DM6	(L-2)	(+) <note 3=""> See Installation Procedure of CAM FOLLOWER ARM UNIT, Item 12-4.</note>
9	9	BRAKE ASS'Y	T	DM1 DM7	2(P-2), (P-3), 2(L-3), 2(L-4)	(+) See Setting Condition in Fig. DM7.
10	10	TENSION ARM UNIT	T	DM1 DM8	(P-4), (L-5)	(+) See Position Adjustment of Tension Post.
A	B	· ·	(D)	E	F	G

How to read chart shown above :

(A): Order of steps in Procedure

When reassembling, perform the step(s) in the reverse order.

These numbers are also used as the identification (location) No. of parts in Figures.

B: Starting No. followed by corresponding part which can be removed at this stage. See example below. Example:

The pinch Cam Cap can be removed without removing any other parts because the STEP/LOC. No. and the STARTING

But the Pressure Roller Arm Unit can be removed only after removing the Pinch Cam Cap(No. 1)

(C): Part to be removed or installed.

(D): Location of part.

B=Bottom

(E): Fig. No. showing Procedure or Part Location.

2(L-1) = 2 Locking Tabs(L-1)

(C-1) = Cut Washer(C-1); (N-1) = Nut(N-1);G : Adjustment information for installation.

(+): Refer to Exploded Views for Lubrication Information.

No.	No.	PART		No.	HEINIOVE	(ADJUSTMENT INFORMATION)
11)	11	TAKEUP REEL TABLE UNIT	Т	DM1	*(L-6)	(+) <note 4=""> See Height Adjustment of</note>
12	12	SUPPLY REEL TABLE UNIT	Т	DM1	*(L-7)	Reel Tables.
13)	13	CASSETTE DOWN DETECT PIECE	В	DM2		
14)	14	MOTOR BLOCK ASS'Y	В	DM2 DM9	Unsolder, 2(S-6)	
15	15	CLUTCH UNIT	В	DM2 DM10	(C-2), <note2> Capstan Belt</note2>	(+)
16	16	P.C.B. BRACKET	В	DM2	(S-7)	
17)	14	SECONDARY ROD UNIT	В	DM2 DM11	*(P-5)	(+)
18)	17	MAIN ROD	l _B	DM2 DM12	(C-3),*2(L-8) <note 2=""></note>	(+) See Alignment Procedure for Mechanism, Item12-2
19	18	LOADING ARM T UNIT	В	DM2 DM13		(+) See Alignment Procedure for
20	18	LOADING ARM S UNIT	В	DM2 DM13	*(L-9)	Mechanism, Item 12-1.
21)	21	P1 ROLLER	İΤ	DM1	(C-4), <note 2=""></note>	
22	3	CAPSTAN HOLDER UNIT	T	DM1	3(S-8)	(+) See Replacement of Capstan Rotor or Stator Unit.
23	23	CENTER BLOCK UNIT	T	DM1	2(S-9)	
24)	24	CYLINDER BASE	T	DM1 DM15	3(S-13)	(+)
25	24	D.D. CYLINDER UNIT	B	DM2 DM15	3(S-11),2(S-12) Unsolder, Head Amp Ass'y	See, Replacement of D.D. Cylinder Unit.
26	14	CAPSTAN ROTOR UNIT	В	DM2 DM14		(+) See, Replacement of Capstan Rotor or Stator Unit.
27	26	CAPSTAN STATOR UNIT	В	DM2 DM14	3(S-14), Unsolder	See, Replacement of Capstan Rotor or Stator Unit.
28	24	LOADING POST BASE T UNIT	T	DM1	Slide to rear to remove	(1)
29	24	LOADING POST BASE S UNIT	T	DM1	Slide to rear to remove	(+)
		<u> </u>				

REMOVE

Fig.

INSTALLATION

START

PART

/LOC. -ING







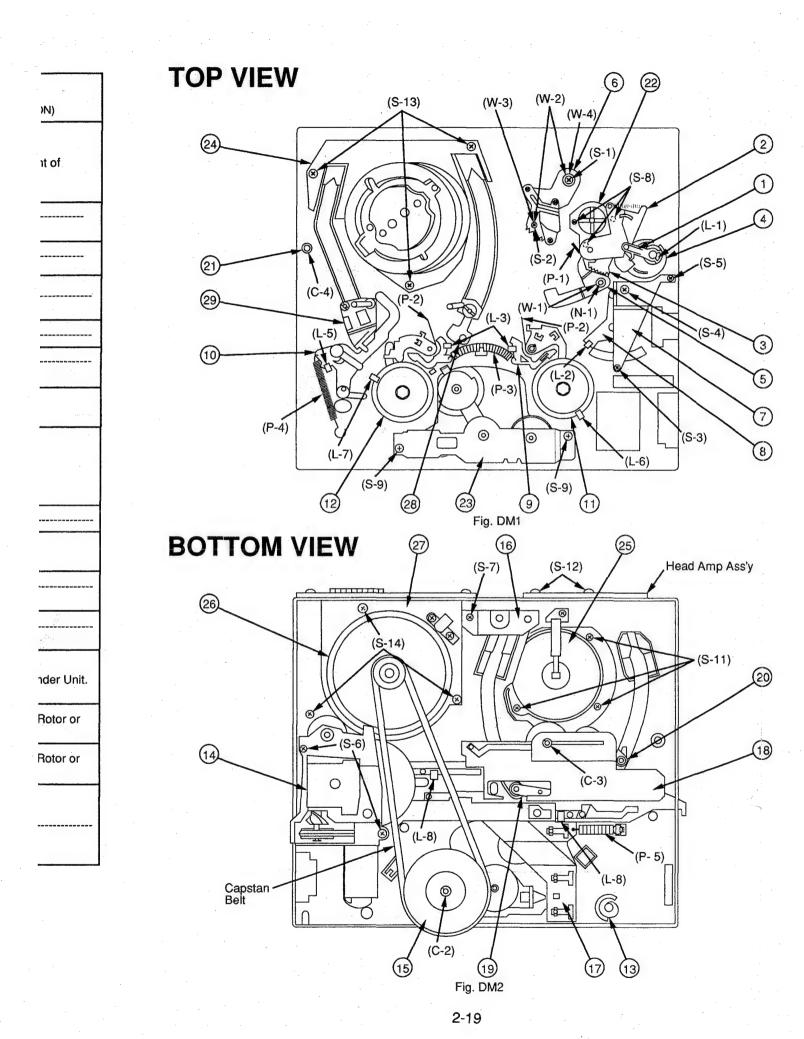


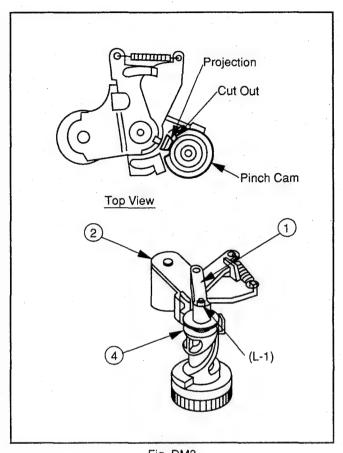












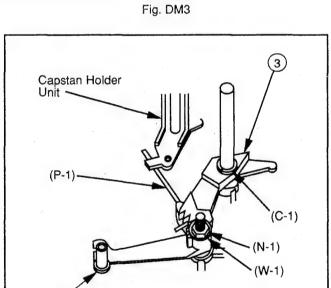
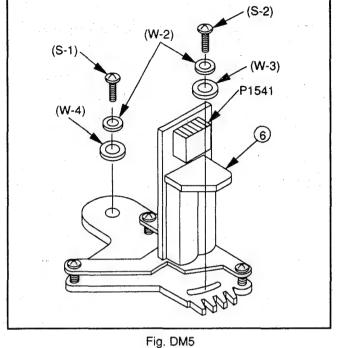


Fig. DM4



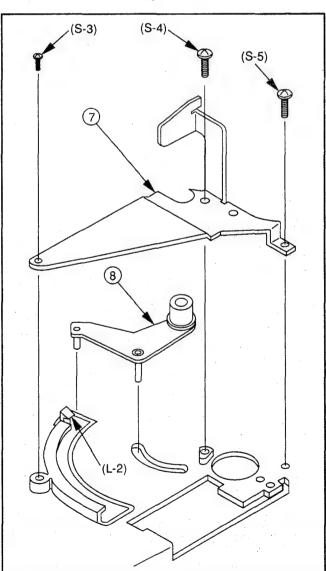


Fig. DM6

2-20

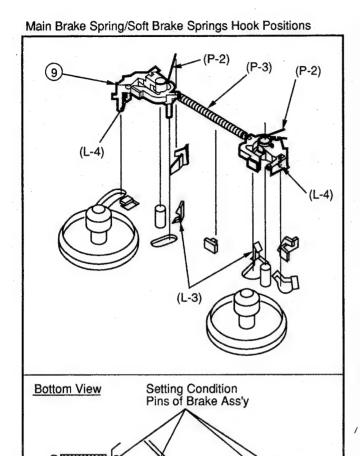


Fig. DM7

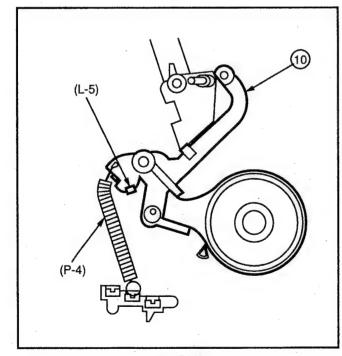


Fig. DM8

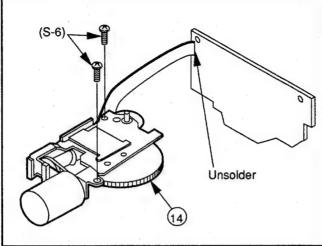


Fig. DM9

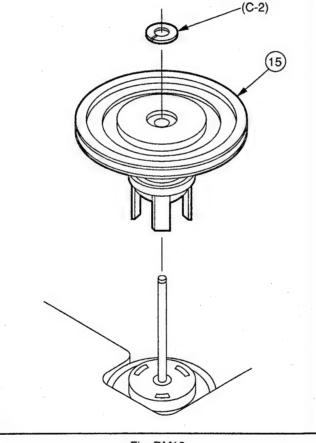
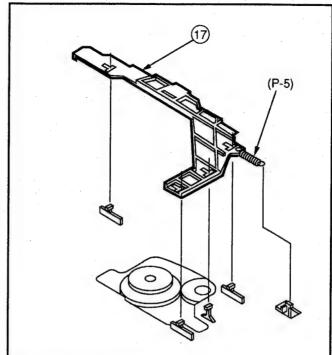


Fig. DM10



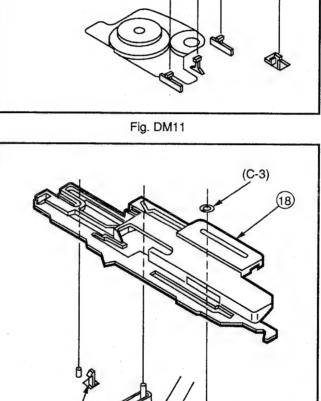


Fig. DM12

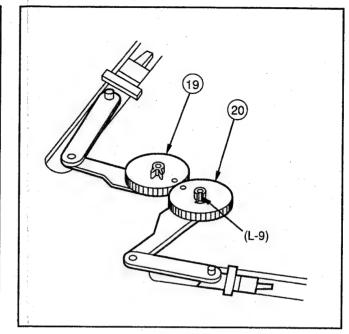


Fig. DM13

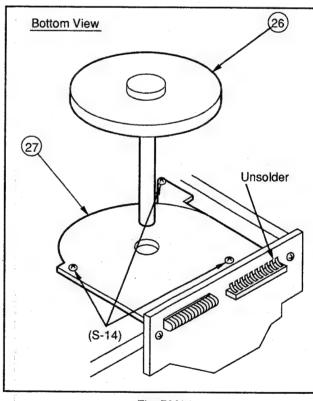
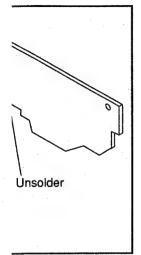


Fig. DM14



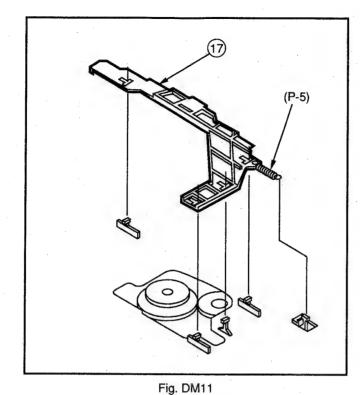
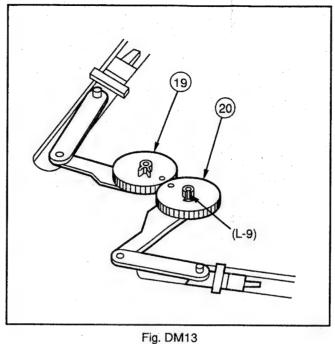
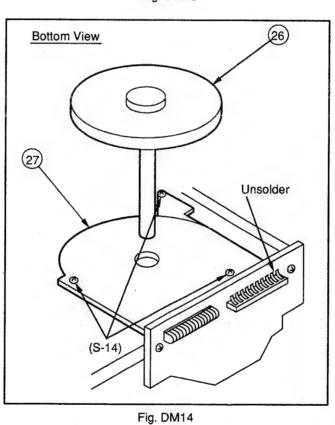


Fig. DM12





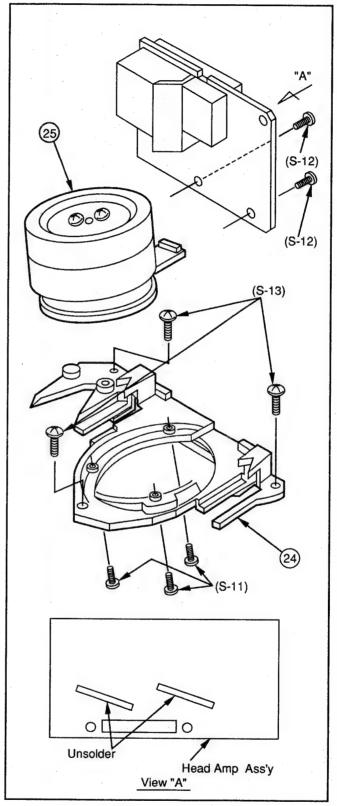


Fig. DM15

Reference <Notes> in Table 11:

- Before removing the Pressure Roller Arm Unit, turn the Loading Pulley of the Motor Block Ass'y. Then align the projection of the Pressure Roller Arm Unit and the cut of portion of the Pinch Cam.
- This cut washer is not reusable. If removed, install a new one.
- Install the Cam Follower Arm Unit so that the pin on the Can Follower Arm Unit meets the inner slot of the Motor Bloc Ass'y.
- When reinstalling the Supply and Takeup Reel Tables, clean the rotating surface on them with a soft cloth.

12. ALIGNMENT PROCEDURES OF **MECHANISM**

he mechanism of this model is mostly engaged to the System Control Circuit through the Mode Select Switch. herefore the connection between the Mode Select Switch and ne Cam Gear decides all further movement of the mechanical arts such as levers, gears, rollers, and so on. For specific emoval and installation procedures, refer to the Disassembly/ ssembly Procedures on Page 2-17.

these parts are not properly aligned, even if off by only one both, the unit will be unloaded or stopped. It may result in lamage to the mechanical or electrical parts. This mechanical idjustment is performed in the Eject Mode. The details oncerning the mechanical condition will be described later.

mportant Note:

All through hole alignments must be made precisely so that the complete procedure will exactly align the gear teeth. If the alignment is off by only one tooth then the mechanism will not operate properly.

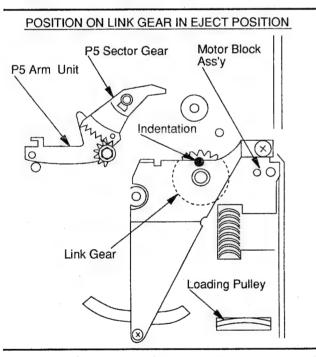


Fig. A1

1. The position of the Indentation on the Link Gear, after removing the Cassette Up Ass'y with the Motor Block Ass'y in the Eject Position, is shown in Fig. A1.

12-1. ALIGNMENT PROCEDURES OF LOADING ARM T UNIT AND LOADING **ARM S UNIT**

1. Set the P2 and P3 posts to the unloading position. Then install the Loading Arm T Unit and the Loading Arm S Unit so that the hole on the Loading Arm T Unit is exactly in line with the hole on the Loading Arm S Unit.

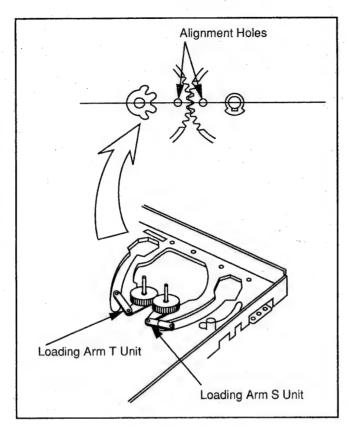


Fig. A2

12-2. ALIGNMENT PROCEDURES FOR MAIN ROD

1. Install the Main Rod so that the line on the Main Rod aligns with the Shaft of the Loading Arm T Unit. Make sure the Shafts of the Brake Ass'y, and the Shaft of the Cam Follower Arm Unit are positioned as shown in Fig. A3.

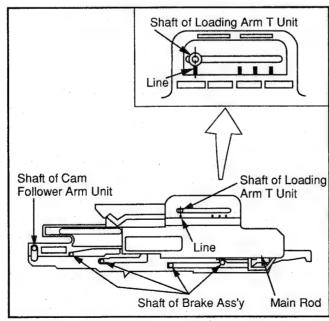


Fig. A3

12-3. ALIGNMENT PROCEDURES OF LINK GEAR, CAM GEAR, AND MODE SELECT SWITCH

- 1. Install the Cam Gear so that the Indentation on the Cam Gear aligns with the Hole on the Link Gear.
- 2. Install the Mode Select Switch so that the Hole on the Mode Select Switch aligns with the Indentation on the Cam Gear. Refer to Fig. A4.

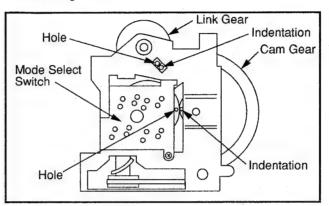
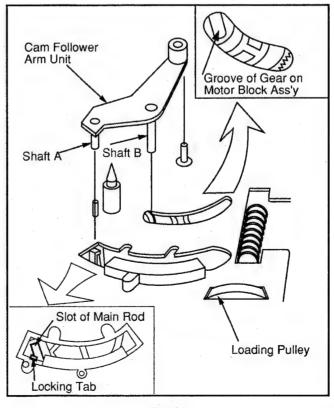


Fig. A4

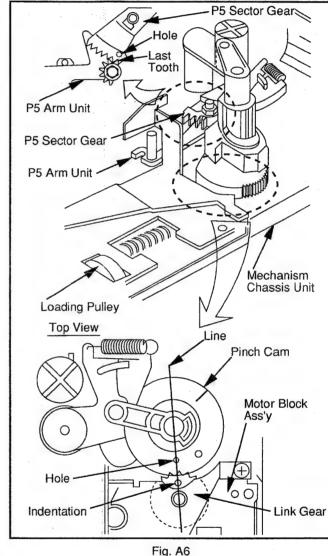
12-4. INSTALLATION PROCEDURES OF CAM FOLLOWER ARM UNIT

- 1. Confirm that the Cassette Up Ass'y is in the Eject Position.
- 2. Then install the Cam Follower Arm Unit, as shown in
- 3. Confirm that Shaft A is installed into the slot of the Main Rod.
- 4. Confirm that Shaft B is installed into the groove on the gear of the Motor Block Ass'y at the point indicated by the arrow in Fig. A5.



12-5. ALIGNMENT PROCEDURES OF P5 ARM UNIT AND P5 SECTOR GEAR. PINCH CAM, AND LINK GEAR

- 1. When installing the Pinch Cam, confirm that the Link Gear of the Motor Block Ass'y is in the Eject Position .
- 2. Install the P5 Sector Gear and Pinch Cam simultaneously. The last tooth on the P5 Arm Unit must align with the hole on the P5 Sector Gear and the hole on the Pinch Cam must align with the Indentation on the Link Gear.



13. DISASSEME **ADJUSTME**

STEP LOC. No.	START- ING No.	
1	1	TC
2	2	SI
3	3	W
4	2	M
(5)	2	C/
6	2	НС
7	2	CA
8	2	SE
9	2	WI
10	8	GE
11)	2	CA
12	2	SE
13	2	W

(Top)



Main Shaft Unit

12-3. ALIGNMENT PROCEDURES OF LINK GEAR, CAM GEAR, AND MODE SELECT SWITCH

- 1. Install the Cam Gear so that the Indentation on the Cam Gear aligns with the Hole on the Link Gear.
- 2. Install the Mode Select Switch so that the Hole on the Mode Select Switch aligns with the Indentation on the Cam Gear. Refer to Fig. A4.

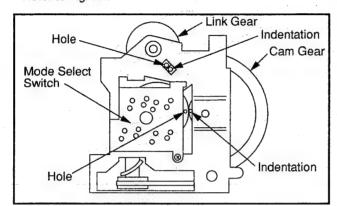


Fig. A4

12-4. INSTALLATION PROCEDURES OF CAM FOLLOWER ARM UNIT

Unit

)R

Rod aligns

Shaft of the

in Fig. A3.

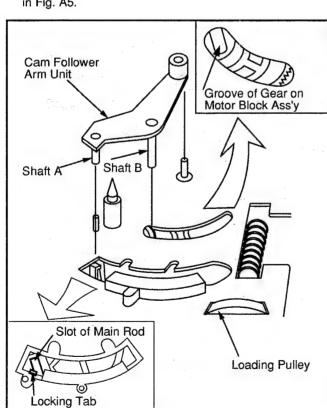
of Loading

Vain Rod

Unit

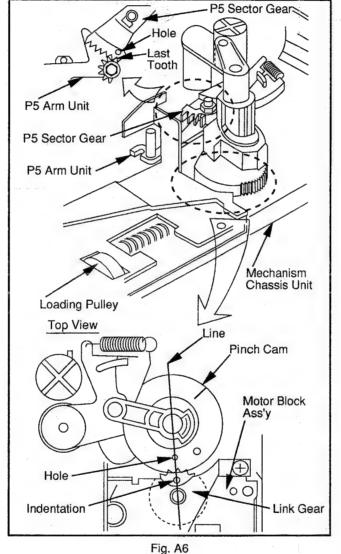
Unit

- 1. Confirm that the Cassette Up Ass'y is in the Eject Position. 2. Then install the Cam Follower Arm Unit, as shown in Fig. A5.
- 3. Confirm that Shaft A is installed into the slot of the Main Rod.
- 4. Confirm that Shaft B is installed into the groove on the gear of the Motor Block Ass'y at the point indicated by the arrow in Fig. A5.



12-5. ALIGNMENT PROCEDURES OF P5 ARM UNIT AND P5 SECTOR GEAR. PINCH CAM, AND LINK GEAR

- 1. When installing the Pinch Cam, confirm that the Link Gear of the Motor Block Ass'y is in the Eject Position .
- 2. Install the P5 Sector Gear and Pinch Cam simultaneously. The last tooth on the P5 Arm Unit must align with the hole on the P5 Sector Gear and the hole on the Pinch Cam must align with the Indentation on the Link Gear.

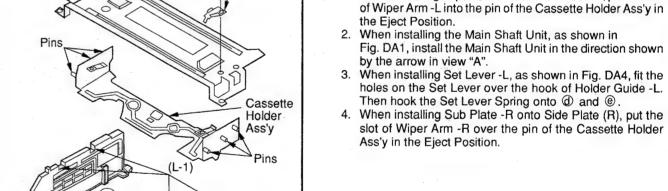


13. DISASSEMBLY / ASSEMBLY AND ADJUSTMENT OF CASSETTE UP ASS'Y

When reassembling, follow the steps in reverse order.

STEP LOC. No.	START- ING No.	PART	Fig. No.	REMOVE	INSTALLATION (ADJUSTMENT INFORMATION)
1	1 .	TOP PLATE	DA1	(S-1), Grounding Plate,	
				4(L-1)	
2	2	SUB PLATE UNIT	DA2	4(L-2) (+)	
3	3	WIPER ARM -L	DA3	(L-6), Wiper Spring -L	(+) <note 1=""></note>
4	2	MAIN SHAFT UNIT	DA1		<note 2=""></note>
(5)	2	CASSETTE GUIDE	DA1		
6	2	HOLDER GUIDE -L	DA4	2(L-8) (+)	
7	2	CASSETTE HOLDER GUIDE R UNIT	DA4	2(L-9) (+)	
8	2	SET LEVER -L	DA4	2(L-10), Set Lever Spring	<note 3=""></note>
9	2	WIPER ARM R UNIT	DA2	(L-3)	(+) Align the hole. <note 4=""></note>
10	. 8	GENEVA GEAR UNIT	DA2	(L-7)	(+) Align the hole. <note 4=""></note>
11)	2	CASSETTE LEVER	DA2	(L-11)	
12	2	SENSOR COVER	DA2	(L-4)	
13	2	WORM WHEEL	DA2	(L-5)	(+) Hole at bottom.
(Top)	·				

List of Abbreviations: (S-1)(S-1) = Screw(S-1); 4(L-1) = 4 Locking Clips(L-1)Grounding Reference <Notes> in Table 13: 1. When installing Wiper Arm - Lonto Side Plate - L, put the slot



3. When installing Set Lever -L, as shown in Fig. DA4, fit the holes on the Set Lever over the hook of Holder Guide -L. Then hook the Set Lever Spring onto @ and @. 4. When installing Sub Plate -R onto Side Plate (R), put the

slot of Wiper Arm -R over the pin of the Cassette Holder Ass'y in the Eject Position.

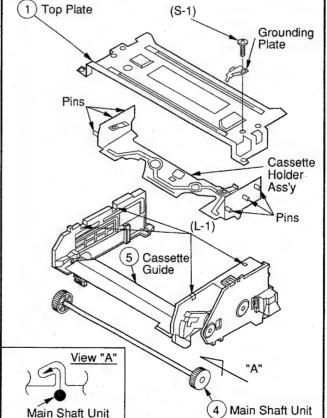


Fig. DA1

Fig. A5

(Right Side)

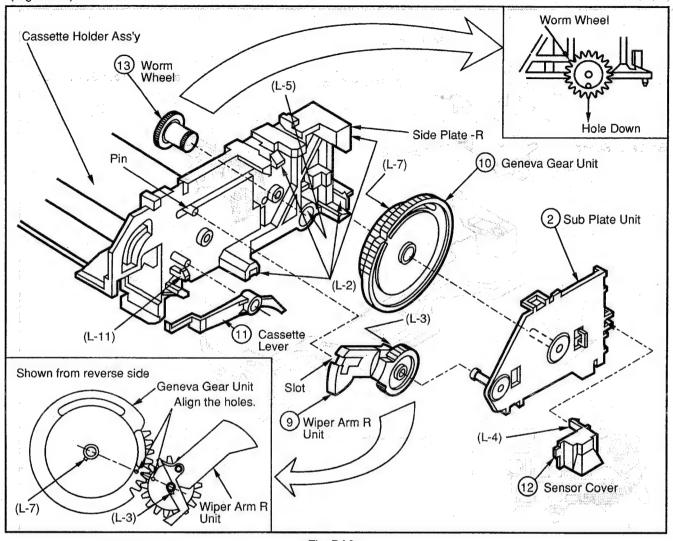


Fig. DA2

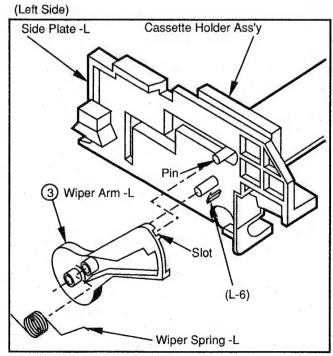


Fig. DA3

(Cassette Holder Ass'y)

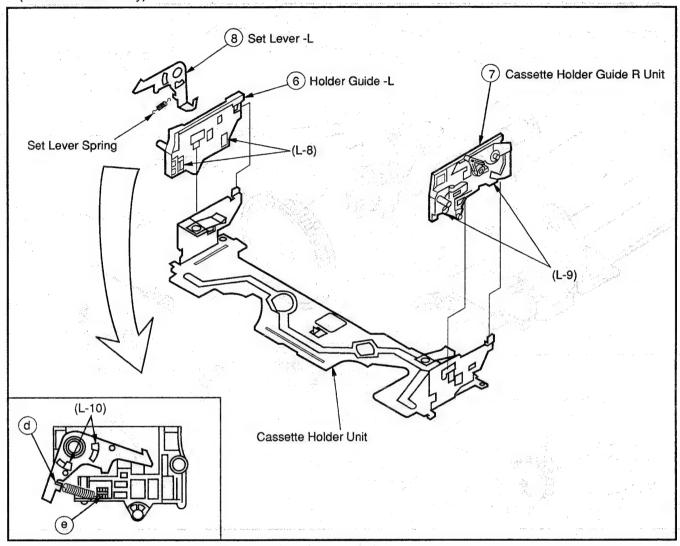


Fig. DA4

14. ADJUSTMENT OF CASSETTE UP ASS'Y AND CHASSIS

When reinstalling the Cassette Up Ass'y, the mechanical adjustment (alignment) described below should be done to ensure proper operation. Then, before reinstalling the Cassette Up Ass'y, be sure that the hole on the Wiper Arm R Unit is aligned with the hole on the Geneva Gear Unit (page. 2-27, Fig.DA2). The Cassette Holder Ass'y must be in the Eject Position.

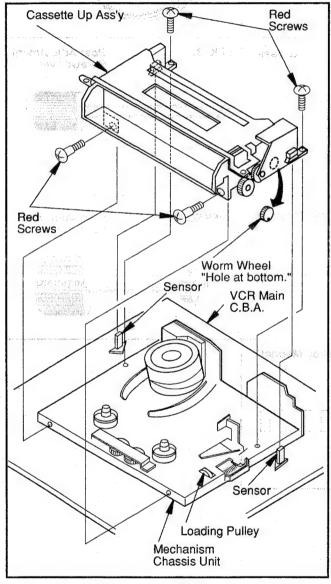
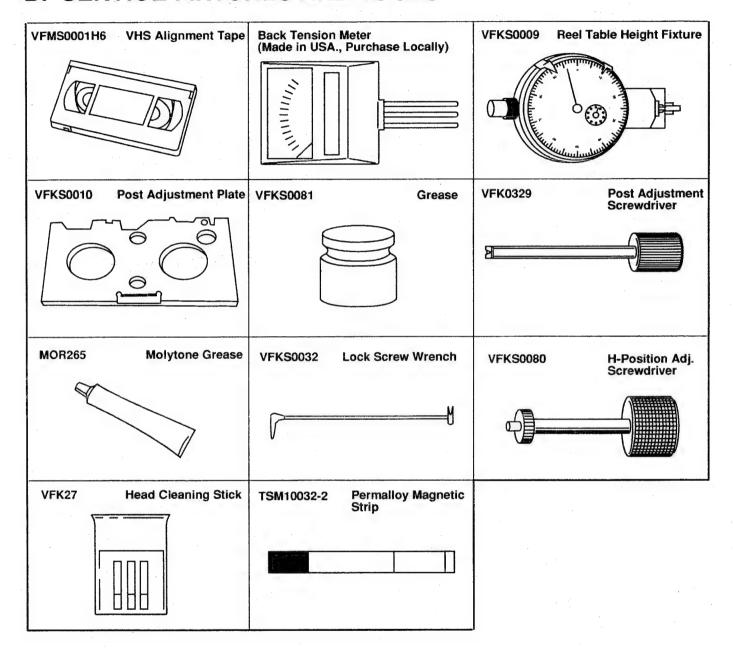


Fig. DA5

- Turn the Loading Pulley of the Motor Block Ass'y clockwise.
 Then be sure that the Mechanism is placed fully into the Eject position and maintain this position.
- Slowly install the Cassette Up Ass'y onto the chassis so that the worm wheel fits into the gear on the Motor Block Ass'y.
- Then confirm that the Sensors fits properly into the Sensor Covers.
- Confirm that the hole in the Worm Wheel is in the correct position. (See Fig. DA5)
- 5. Reinstall the 4 Red Screws as shown in Fig. DA5.
- Check the operation of the Cassette Loading Mechanism manually and then confirm proper operation with the power turned on.

B. SERVICE FIXTURES AND TOOLS



C. ELECTRICAL ADJUSTMENT PROCEDURES

1. TEST EQUIPMENT

To do all of these electrical adjustments, the following equipment is required.

1. Dual-Trace Oscilloscope

Voltage Range

: 0.001~50V/Div. : DC~50MHz

Frequency Range Probes

: 10:1, 1:1

2. Signal Generator

Sinewave

: 0~10MHz

3. Frequency Counter

Frequency Range

: 0~150MHz

4. NTSC Video Pattern Generator

DVM(Digital Volt Meter)
 Voltage Range : 0

: 0.01~50V

6. Plastic Tip Driver and Non-Metal Driver

7. Lock Screw Wrench (VFKS0032)

8. Isolation Transformer (Variable)

9. VHS Alignment Tape (VFMS0001H6)

10. White Pattern Generator

11. White Balance Meter

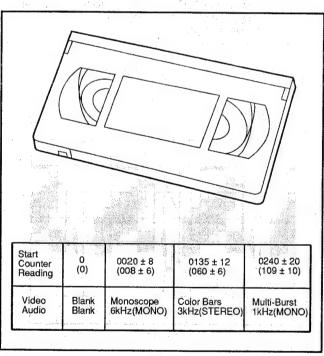


Fig. E1

2. HOW TO READ THE ADJUSTMENT PROCEDURES

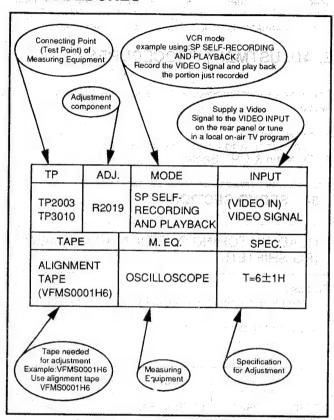


Fig. E2

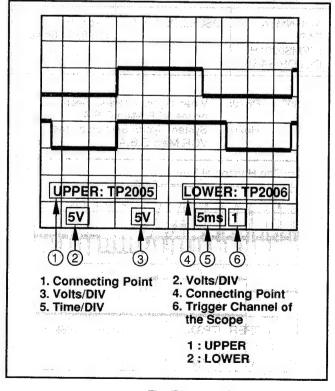


Fig. E3

Caution: Use an Isolation Transformer (Variable)

Because a Hot Chassis Ground is present in the Switched Mode Power Supply Circuit, an Isolation Transformer must be used. Also, in order to have the ability to increase the input voltage slowly, when troubleshooting this type of Power Supply Circuit, a variable Isolation Transformer is required.

3. ADJUSTMENT PROCEDURES

These adjustment procedures consist of the following sections.

- 1. Servo Section
- 2. Luminance and Chrominance Section 3. TV Main & CRT Section

3-1. SERVO SECTION

HEAD SWITCHING POSITION ADJUSTMENT (PG SHIFTER)

Purpose:

Determine the Head Switching Point during Playback.

Symptom of Misadjustment:

May cause Head Switching Noise and/or Vertical Jitter in the picture.

TP	ADJ.		MODE	INPUT
TP3001 TP6205	R6201		SP PLAYBACK	
TAPE		M.EQ.		SPEC.
ALIGNMENT TAPE (VFMS0001H6) COLOR BARS		C	OSCILLOSCOPE	T=6±1H (0.38±0.06msec)

Note:

TP3001, TP6205: Video Signal Process Section

on the VCR Main C.B.A.

System Cotrol Section on the R6201:

VCR Main C.B.A.

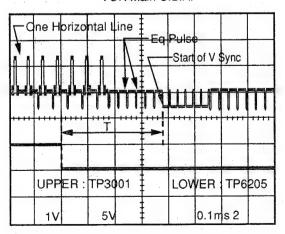


Fig. E4

3-2. LUMINANCE AND CHROMINANCE SECTION

3-2-1. E-E LEVEL ADJUSTMENT

Purpose:

Set the optimum E-E Level of the Luminance Component.

Symptom of Misadjustment:

The picture is sometimes too dark or too bright.

TP	ADJ.	MODE		INPUT	
TP3001	R3014	STOP		(VIDEO IN) NTSC COLOR BAR (W/WHITE WINDOW)	
TAPE		M.EQ.	SPEC.		
	OSCILLOSCOPE NTSC VIDEO PATTERN GENERATOR			A=2.0 ± 0.1Vp-p	

Note:

TP3001, R3014: Video Signal Process Section on the VCR Main C.B.A.

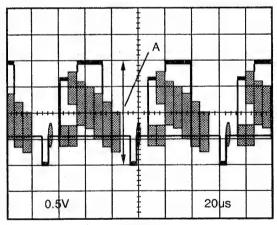


Fig. E5

3-2-2. SYNC TIP FREQUENCY AND DEVIATION ADJUSTMENT

Purpose:

To maintain the recording interchangeability by adjusting the Sync Tip Frequency and Deviation.

Symptom of Misadjustment:

Record interchangeability is inadequate.

Method 1

(SET UP)

 Connect a signal generator (sinewave) to TP3002 on the Video Signal Process Section of the VCR Main C.B.A. through a resistor (1ΚΩ).

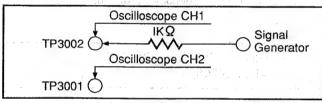


Fig. E6-1

- 2. Also, connect the oscilloscope CH1 to TP3002.
- Connect the oscilloscope CH2 to TP3001 on the Video Signal Process Section of the VCR Main C.B.A.
- Make sure that R3003(REC VIDEO LEVEL) and R3015(REC CHROMA) on the Video Signal Process Section of the VCR Main C.B.A. are not turned fully counterclockwise.

A-1-1. Sync Tip Frequency adjustment

	A 1,3741	40.45			
TP	ADJ.	MODE		INPUT	
TP3002	R3010	SP REC		(VIDEO IN) NTSC COLOR BAR (W/WHITE WINDOW)	
TAPE	rgu:	M.EQ.		SPEC.	
BLANK TAPE	OSCILLOSCOPE NTSC VIDEO PATTERN GENERATOR SIGNAL GENERATOR			Beat is at minimum.	

Note:

TP3002, R3010: Video Signal Process Section on the VCR Main C.B.A.

 After set up (1~4) is complete, set the frequency and the output level of the signal generator with the AC Plug NOT plugged in as follows;

Frequency: 3.5MHz Output level: 400mVp-p

(at TP3002•••Set oscilloscope (CH1) level with the AC Plug **NOT** plugged in.)

2. Adjust R3010(SYNC TIP FREQ) so that the beat is at minimum as shown in Fig. E6-2.

Note:

First, turn R3010 fully clockwise, then adjust R3010.

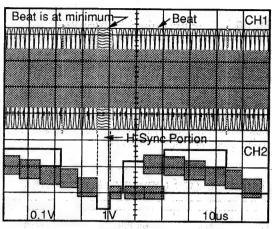


Fig. E6-2

A-2-1. Deviation adjustment

TP	ADJ. MODE		INPUT
TP3002	R3011	SP REC	(VIDEO IN) NTSC COLOR BAR (W/WHITE WINDOW)
TAPE		M.EQ.	SPEC.
BLANK TAPE	NTSC \	LOSCOPE VIDEO RN GENERATOI L GENERATOR	Beat is at minimum.

Note:

TP3002, R3011: Video Signal Process Section on the VCR Main C.B.A.

 Set the frequency and the output level of the signal generator with the AC Plug NOT plugged in as follows;

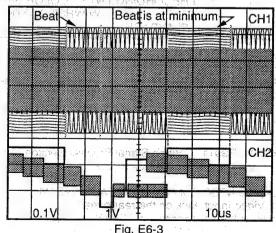
Frequency: 4.5MHz Output level: 400mVp-p

(at TP3002•••Set oscilloscope (CH1) level with the AC Plug **NOT** plugged in.)

2. Adjust R3011(DEVIATION) so that the beat is at minimum as shown in Fig. E6-3.

Note

First, turn R3011 fully clockwise, then adjust R3011.



 Set the frequency of the signal generator to 3.5MHz again. And confirm that the beat is at minimum as shown in Fig. E6-2. If not, readjust R3010(SYNC TIP FREQ). Method 2

(Alternative to Method 1)

Note:

Adjust Playback level before Deviation adjustment is performed as follows.

- 1. Connect the oscilloscope to TP3001.
- 2. Playback Color Bar portion of alignment tape.
- Adjust R3041 (PB LEVEL) so that the A level in Fig. E8 of Page 2-35 is 2.00 ± 0.15 Vp-p.

A-1-2. Sync Tip Frequency adjustment

TP	ADJ. MODE		INPUT
TP3002	R3010 SP REC		
TAPE	M	I.EQ.	SPEC.
BLANK TAPE	OSCILLO NTSC VIE GENERA FREQUEI COUNTE	DEO PATTERN TOR NCY	FREQUENCY is 3.5MHz ± 50KHz

Note

TP3002, R3010: Video Signal Process Section on the VCR Main C.B.A.

- Connect shorted Phono Plugs to the Video Input Jack on the rear panel. (Do not supply any VIDEO signal.)
- 2. Connect the frequency counter to TP3002.
- 3. Make a recording in SP mode.
- Adjust R3010 (SYNC TIP FREQUENCY) so that the frequency is 3.5 MHz ± 50 KHz.

Note:

First, turn R3010 fully clockwise, then adjust R3010.

A-2-2. Deviation adjustment

TP	ADJ.	MODE	INPUT
TP3001	R3011	SP SELF- RECORDING AND PLAYBACK	(VIDEO IN) NTSC COLOR BAR (W/WHITE WINDOW)
TAPE		И.EQ.	SPEC.
BLANK TAPE	OSCILLO NTSC VII GENERA	DEO PATTERN	A=2.00 ± 0.15Vp-p

Note:

TP3001, R3011: Video Signal Process Section on the VCR Main C.B.A.

- Supply a NTSC Color Bar signal W/WHITE Window to the Video Input Jack on the rear panel.
- 2. Connect the oscilloscope to TP3001.
- Set R3011 (DEVIATION) to the center position as shown in Fig. E6-4.

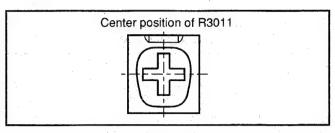


Fig. 6-4

- 4. Insert a cassette tape and make a recording in SP mode.
- 5. Playback the recording and confirm that the A level in Fig. E8 of Page 2-35 is 2.00 ± 0.15 Vp-p.
- If not, turn R3011 clockwise to decrease or counterclockwise to increase the level. Repeat the steps 4 to 6 until the A level becomes 2.00 ± 0.15 Vp-p.

3-2-3. RECORDING CURRENT ADJUSTMENT

First, adjust Rec chroma level then, Rec Video level.

A-1. REC CHROMA LEVEL ADJUSTMENT

Purpose:

Set the optimum Record Chroma Level.

Symptom of Misadjustment:

If the Record Chroma Level is too high, Beats may be seen in the picture. If the Level is too low, the Color may be degraded.

TP.	ADJ.	MODE	INPUT
TP3002			(VIDEO IN) NTSC COLOR BAR (W/WHITE WINDOW)
TAPE		M.EQ.	SPEC.
BLANK TAPE	NTSC VII		Model: A,B,C,D,E,F,G A=56 ± 4mVp-p Model: H A=60 ± 4mVp-p

Note

TP3002, R3015,

(point (A), (B)): Video Signal Process Section on the VCR Main C.B.A.

1) Connect TP3012 and +5V (TP+5V) with 100Ω resistor to eliminate luminance component.

(For early product)

Connect point A and +5V (point B) with 100 Ω resistor as shown in Fig. E7-1.

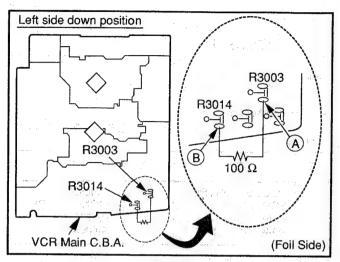


Fig. E7-1

- 2) Adjust R3015.
- Disconnect TP3012 and +5V (TP+5V) after this adjustment is complete.

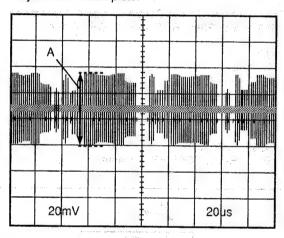


Fig. E7-2

A-2. REC VIDEO LEVEL ADJUSTMENT

Purpose:

Set the optimum Record Luminance Level.

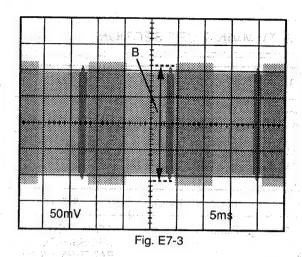
Symptom of Misadjustment:

If the record Luma Level is too high, Video may over load. If the Level is too low, the S/N Ratio deteriorates.

and a management of the first of the contraction of					
TP	ADJ.	MODE	INPUT		
TP3002		SLP REC	(VIDEO IN) NTSC COLOR BAR (W/WHITE WINDOW)		
TAPE	. · · · · · · · · · · · · · · · · · · ·	I.EQ.	SPEC.		
	OSCILLOS NTSC VIDE PATTERN (Model : A,B,C,D,E,F,G B=220 ± 10 mVp-p Model : H] B=230 ± 10 mVp-p		

Note:

TP3002, R3003: Video Signal Process Section on the VCR Main C.B.A.



3-2-4. PLAYBACK LEVEL ADJUSTMENT

Purpose:

To align the Playback Level of the Video Signal with the Recording (E-E) Level.

Symptom of Misadjustment:

Playback interchangeability is inadequate.

TP	ADJ.	MODE	S ,	INPUT
TP3001	R3041	SP SELF- RECORDING AND PLAYBACK	(VIDEO IN) NTSC COLOR BA (W/WHITE WINDO	
TAPE	M.EQ.			SPEC.
BLANK TAPE	OSCILLOSCOPE NTSC VIDEO PATTERN GENERATOR		N	A=2.00 ± 0.15Vp-p

Note:

TP3001, R3041: Video Signal Process Section on the VCR Main C.B.A.

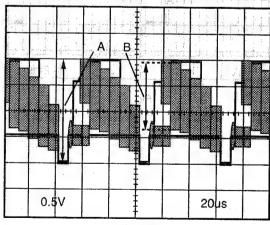


Fig. E8

Note:

Confirm that the Cyan level (B) is 1.26 ± 0.3 Vp-p.

3-3. TV MAIN & CRT SECTION

3-3-1. SUB CONTRAST ADJUSTMENT

Purpose:

To set the optimum Sub Contrast Level.

Symptom of Misadjustment:

The picture is too dark or too light.

TP	ADJ.	MODE	INPUT
TP13 or TP50	R325	STOP	(VIDEO IN) CROSSHATCH PATTERN SIGNAL
TAPE	М	.EQ.	SPEC.
	OSCILLOSCOPE NTSC VIDEO PATTERN GENERATOR		Model: A, B, C, D A=1.9 ± 0.1Vp-p Model: E, F, G, H A=2.7 ± 0.1Vp-p

Note:

TP50: CRT C.B.A.

R325, TP13: TV Main C.B.A.

(SETUP)

Reset the control levels to the factory -set levels using the remote control.

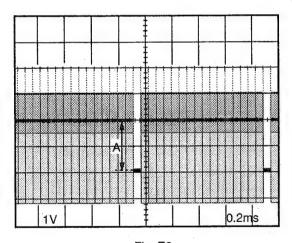


Fig. E9

3-3-2. FOCUS, SCREEN, CUT OFF, DRIVE ADJUSTMENT

Purpose:

To set the optimum Focus and Screen.

Symptom of Misadjustment:

The picture is out of Focus and there will be an improper screen color mix.

TP	ADJ.	MOD	E	INPUT
	FOCUS CONTROL SCREEN CONTROL R365, R363, R369, R370, R371		P	(VIDEO IN) MONOSCOPE PATTERN SIGNAL
TAPE	M.EQ.			SPEC.
	NTSC VIDEO PATTI GENERATOR	ERN		efer to Descriptions slow

Note:

Focus Control, Screen Control: Flyback Transformer R363, R365, R369, R370, R371: CRT C.B.A.

(SETUP)

1. Controls

R363 (B-DRIVE VR) : Center

R365 (R-DRIVE VR): Counterclockwise 30

degrees from center on Component Side,

refer to Fig. E10.

R369, R370, R371

(B-,G-,R- CUT OFF VR) : Center

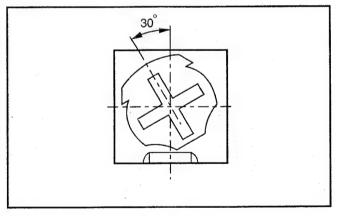


Fig. E10

- Adjust the Focus Control on Flyback Transformer to Sharpest Picture position.
- Turn the Screen Control on Flyback Transformer fully counterclockwise.
- Set the Service Switch on the TV Main C.B.A. to Service Position.
- Turn the Screen Control on Flyback Transformer clockwise carefully and stop at the point where any color is first observed.

- Adjust R369 (B-CUT OFF) and R371 (R-CUT OFF) so that the Horizontal line is white.
- 6. Set the Service Switch to the Normal Position.
- Adjust R324(SUB BRIGHTNESS) so that the picture has adequate brightness.
- Adjust R365(R-DRIVE) and R363(B-DRIVE) so that the whole screen is white.

3-3-3. TINT ADJUSTMENT

Purpose:

To set the standard color phase.

Symptom of Misadjustment: Color phase will be shifted.

(SETUP)

Reset the control levels to the factory -set levels using the remote control.

TP	ADJ.	MODE	INPUT
TP46B	R622	STOP	(VIDEO IN) RAINBOW COLOR BAR
TAPE	M.EQ.		renara SPEC.
	OSCILLOSCOPE NTSC VIDEO PATTERN GENERATOR		A:B=1:1

Note:

TP46B, R622: TV Main C.B.A.

Turn R622 (SUB TINT) on the TV Main C.B.A. so that the waveform becomes A: B =1:1.

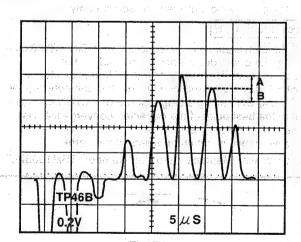


Fig. E11

3-3-4. PURITY ADJUSTMENT

Purpose:

To set the uniform white over the whole screen.

Symptom of Misadjustment:

The white screen will vary from area to area.

TP	ADJ.	MOD)E	INPUT
	Pair of 4-Pole Magnets, Pair of 6-Pole Magnets, Pair of Purity Magnets, Deflection Yoke	STO		(VIDEO IN) CROSSHATCH PATTERN SIGNAL & WHITE PATTERN SIGNAL
TAPE	M.EQ.		180	SPEC.
	NTSC VIDEO PATTERN GENERATOR/WHITE PATTERN GENERATOR DEGAUSSING COIL			efer to scriptions below

Note:

Pair of 4-Pole Magnets, Pair of 6-Pole Magnets, Pair of Purity Magnets, Deflection Yoke: CRT Unit

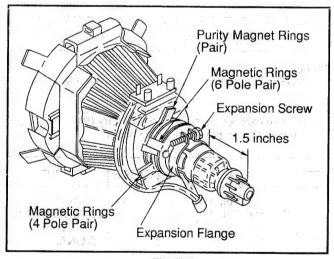


Fig. E12

- Mount and secure Deflection Yoke so that the rear edge of expansion flange is 1.5 inches from the tips of the CRT pins as shown in Fig. E12.
- 2. Supply the Crosshatch Pattern Signal.
- 3. Degauss the CRT by the Degaussing Coil.
- 4. Adjust the pair of 4 Pole Magnets so that B and R at the center of CRT overlap each other.
- Adjust the pair of 6-Pole Magnets so that B and R which overlapped each other in Step 4 overlap G.
- 6. Supply the White Pattern Signal.
- Remove the wedges from the CRT.
 Loosen the expansion screw on the Deflection Yoke, and move the Deflection Yoke toward the CRT.
- Turn the R370 (G-CUT OFF) fully counterclockwise. Adjust the pair of Purity Magnets so that the distorted color areas are approximately across from each other. Move the Deflection Yoke carefully backward (without rotating it), until the distorted color areas disappear from the screen.
- Supply Crosshatch Pattern Signal again. Confirm that the Center Bar is at the horizontal center line of the CRT and the V- Center Bar is at the vertical center line of the CRT. Then tighten the Expansion Screw.
- Set the Service Switch on the TV Main C.B.A. to Service Position. Adjust the R370 (G-CUT OFF) so that the Horizontal line is white.
- Set the Service Switch to Normal Position. Make sure that the whole screen is white. If not, adjust R365 (R-DRIVE) and R363 (B-DRIVE).

3-3-5. STATIC CENTRAL CONVERGENCE ADJUSTMENT

Purpose:

To set the uniform convergence over the whole screen.

Symptom

The convergence on the screen will vary from the center portion to the surrounding edges.

TP	ADJ.	МС	DDE	INPUT
	Pair of 4-Pole Magnets, Pair of 6-Pole Magnets		OP	(VIDEO IN) CROSSHATCH PATTERN SIGNAL
TAPE	M.EQ.			SPEC.
	NTSC VIDEO PATTER GENERATOR	N	Refer to descriptions below	

Note:

Pair of 4 - Pole Magnets,

Pair of 6 - Pole Magnets : CRT Unit

- Adjust the Pair of 4 Pole Magnets so that B and R, at center of CRT overlap each other.
- Adjust the Pair of 6 Pole Magnets so that B and R which overlapped each other in step 1 overlaps G.

3-3-6. DYNAMIC CONVERGENCE ADJUSTMENT

Purpose:

To set the uniform convergence over the whole screen.

Symptom

The convergence on the screen will vary at the sides of CRT.

TP	ADJ.	MODE	INPUT
	DEFLECTION YOKE	STOP	(VIDEO IN) CROSSHATCH PATTERN SIGNAL & WHITE PATTERN SIGNAL
TAPE	M.EQ.		SPEC.
	NTSC VIDEO PAT GENERATOR/WH PATTERN GENER		Refer to descriptions below

Note:

Deflection Yoke: CRT Unit

1. Supply the Crosshatch Pattern Signal.

- Hold Deflection Yoke and wiggle it up and down to correct Crosshatch Pattern position (Refer to Fig. E13).
- Hold Deflection Yoke and wiggle it right to left to correct Crosshatch Pattern position (Refer to Fig. E14).
- Insert three wedges as shown in Fig. E15-1: Model ,
 A, B, C, D or Fig. E15-2: Model E, F, G, H to maintain the correct crosshatch pattern position.

(Confirmation of white)

- 1. Supply White Pattern Signal.
- 2. Confirm purity.
- 3. If the purity is not sufficient, re-adjust purity.

Model : E, F, G, H

- 4. If the convergence error is more than 1.5mm (0.06 inch) from the green dot at each corner, adjust the convergence at that corner with a Permalloy Magnetic Strip*. Insert a permalloy strip into the gap between the DY and CRT along a diagonal line of a CRT bell. Adjust it at the best point of the corrected convergence. Use a permalloy strip at each corner only when the convergence is out of the specs at the corner.
 - * Permalloy Magnetic Strip Part Number (TSM10032-2).

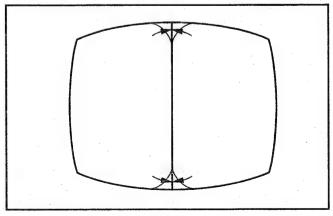


Fig. E13

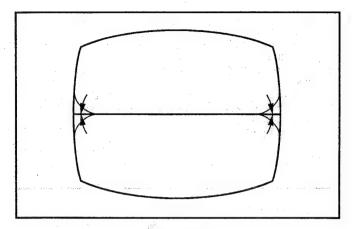


Fig. E14

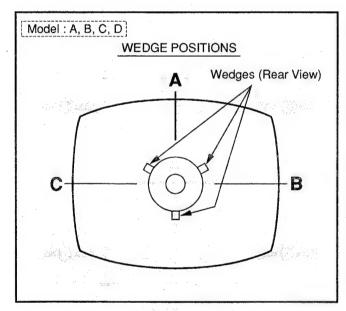


Fig. E15-1

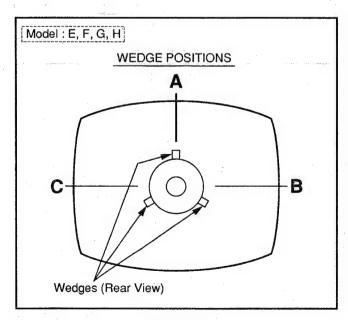


Fig. E15-2

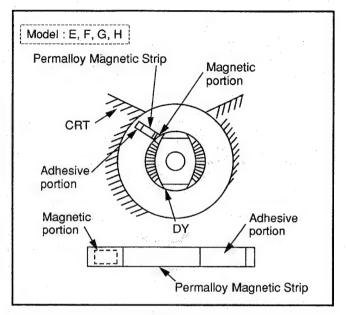


Fig. E16

3-3-7. VERTICAL HEIGHT ADJUSTMENT

Purpose:

To set the standard vertical picture size.

Symptom of Misadjustment : The picture size is on the vertical axis is abnormal.

TP		ADJ.	MODE	INPUT
	R410, J92 (JUMPER L), J91 (JUMPER R)		STOP	(VIDEO IN) MONOSCOPE PATTERN SIGNAL
TAPE		M.EQ.		SPEC.
		NTSC VIDEO PATTERN GENERATOR		Refer to Fig. E17-1 or Fig. E17-2

Note:

R410, J92 (JUMPER L), J91 (JUMPER R):TV Main C.B.A.

Model: A, B, C, D

- Adjust R410 (V-HEIGHT) so that the top 3rd line just disappears from the edge of the screen as shown in Fig. E17-1.
- Confirm that 9 th line is in view and 11th line is out of view.
 - If not, readjust R410(V-HEIGHT).
- If the picture is shifted right and the small circles in the corners do not maintain a perfect circle inside the screen, cut the J92 (Jumper L).
- If the picture is shifted left and the small circles in the corners do not maintain a perfect circle inside the screen, cut the J91 (Jumper R).

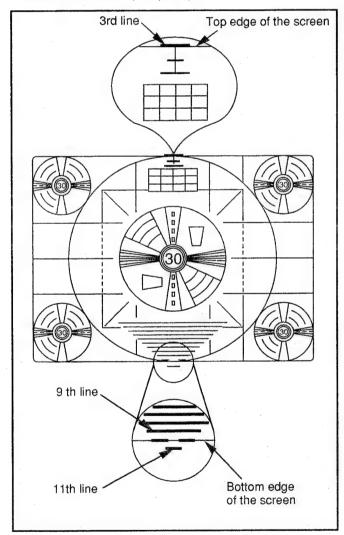


Fig. E17-1

Model : E, F, G, H

- Adjust the R410 (V-HEIGHT) so that the top 4th line just disappears from the edge of the screen. Then adjust so that the bottom 4th line is also out of view (Refer to Fig. E17-2).
- If the picture is shifted right and the small circles in the corners do not maintain a perfect circle inside the screen, cut the J92 (Jumper L).
- If the picture is shifted left and the small circles in the corners do not maintain a perfect circle inside the screen, cut the J91 (Jumper R).

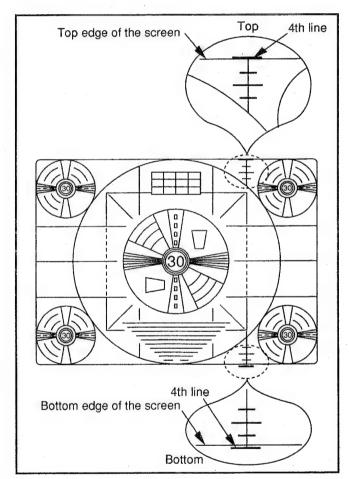


Fig. E17-2

3-3-8. WHITE BALANCE ADJUSTMENT

Purpose:

To set the standard white level for each color temperature.

Symptom of Misadjustment:

White becomes bluish or reddish.

TP	ADJ.	MODE	INPUT
	R363, R365, R371, R369	STOP	(VIDEO IN) LUMINANCE PATTERN SIGNAL
TAPE	M.EQ.	SPEC.	
	NTSC VIDEO PA GENERATOR WHITE BALANCE	Refer to descriptions below	

Note:

R363, R365, R371, R369 : CRT C.B.A.

(SETUP

 Set the following control levels using the remote control.

Control.
Color : Min.
Tint : Center

Brightness: Center Picture: Max. Sharpness: Center

- Turn the Screen control on Flyback Transformer fully counterclockwise.
- 2. Set the Service Switch on the TV Main C.B.A. to Service Position.
- Turn the Screen control on Flyback Transformer clockwise carefully and STOP at the point where any colored Horizontal line is barely visible.
- Adjust the R369 (B-CUT OFF) and the R371 (R-CUT OFF) so that Horizontal line is white.
- 5. Set the Service Switch to the Normal Position.
- Place the photo sensor foot for "JUST FIT" to the CRT.
- 7. Set the R324 (SUB BRIGHTNESS) so that the White Balance Meter (High-Light White, G Meter) is 80µA: Model A, B, C, D or 40µA: Model E, F, G, H
- 8. Adjust R365 (R-DRIVE) and R363 (B-DRIVE) so that the White Balance Meter (both R & B Meters) is 0µA.
- Set the R324 (SUB BRIGHTNESS) so that the White Balance Meter (Cut OFF White, G Meter) is 50µA.
- 10. Adjust R371 (R-CUT OFF) and R369 (B-CUT OFF) so that the White Balance Meter (both R & B Meter) is 0 µ A
- Repeat the above adjustment of 2. to 3. until both R and B read 0 μ A in the High-Light and Low-Light Modes.

3-3-9. SUB BRIGHTNESS ADJUSTMENT

Purpose:

To set the optimum brightness level.

Symptom of Misadjustment:

The picture is too white or too black.

(SETUP

Reset the control levels to the factory -set levels using the remote control.

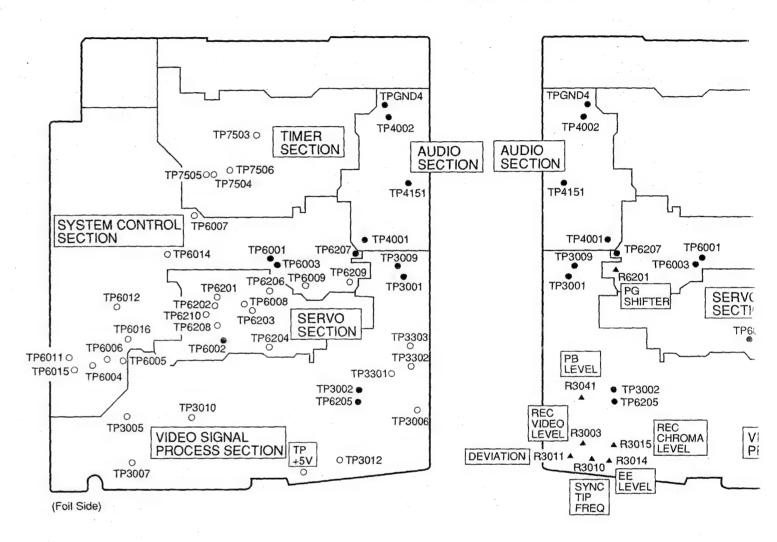
TP		ADJ.	MODE		INPUT
) IN) SHATCH RN SIGNAL			
TAPE		M.EQ.			SPEC.
	NTSC VIDEO PATTERN GENERATOR DVM (DIGITAL VOLT METER)				Model: A,B,C,D 0.46 ± 0.02VDC Model: E,F,G,H 0.53 ± 0.02VDC

Note

TPD1, TPD2, R324: TV Main C.B.A.

D. LOCATION OF TEST POINTS AND ADJUSTMENT POINTS

VCR Main C.B.A.

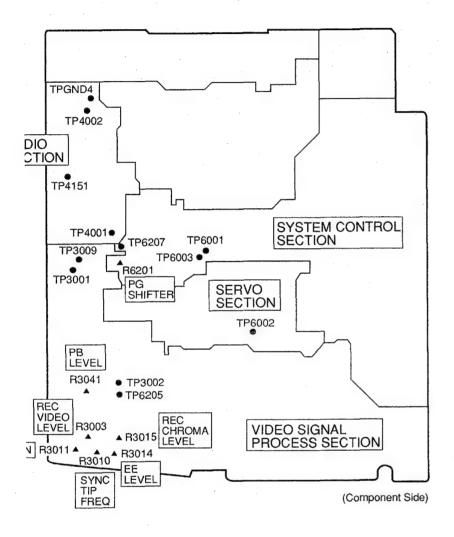


Test Point Information

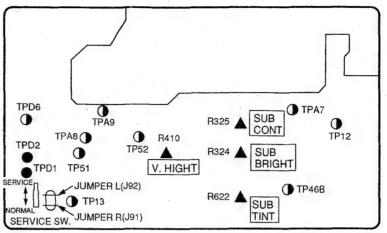
- Test Point with a Test Pin.
- O Test Point with no Test Pin.
- Test Point with a component lead

USTMENT POINTS

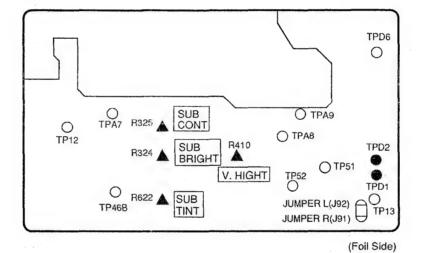
C.B.A.



TV Main C.B.A.



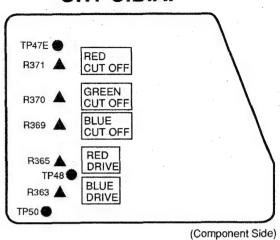
(Component Side)

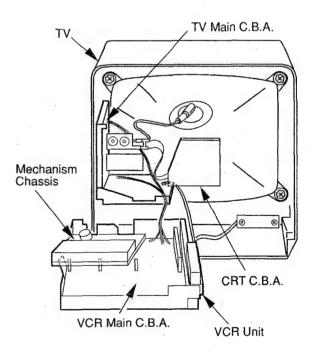


LEADED COMPONENTS LOCATION CHART FOR TV MAIN C.B.A.

TP ①	Component Lead (Component Side)
TP12	R333
TP13	J57
TP46B	R603
TP51	D304
TP52	J10
TPA7	J22
TPA8	D558
TPA9	D560
TPD6	D553

CRT C.B.A.





III. SCHEMATIC DIAGRAMS

SCHEMATIC AND C.B.A. DIAGRAM NOTES

Important safety notice

Components identified by the sign \triangle have special characteristics important for safety. When replacing my of these components. Use only the specified parts.

Replacement parts

- Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list ,and may be slightly different or amended since this drawing was prepared.
- To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.
- 3. Parts different in shape or size may be used.

 However,only interchangeable parts will be supplied as service replacement parts.

Test point information

- :Test point with a component lead on the foil side.
- :Test point with a component lead on the component side.
- :Test point with no test pin.
- :Test point with a test pin.

How to read Schematic and C.B.A. Diagrams

1. The Mark " " " indicates leaded component. Example: " R1002

2. How to read converged lines

(100)B4

Location grid number of the other end of the line
Line number

3. Voltage Measurement

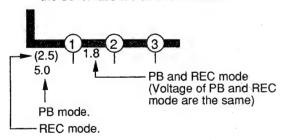
- 1. Voltage Chart
 - a. Color bar signal in SP mode.
 - b. - -: Unmeasurable or not necessary to measure.
- 2. Schematic Diagram
 - a. Audio Section

Monoscope signal in SP REC and PB mode.

b. Other Sections

Color bar signal in SP REC and PB mode.

Note: Voltage Indications for the REC and PB modes on the Schematic are as shown below.



4. How to identify Connectors on Schematic Diagrams

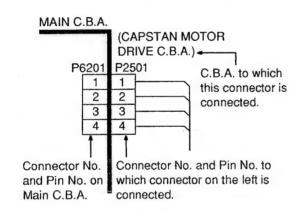
Each connector is labeled with a Connector No. and Pin No. Indicating what it is connected to ,in other words, its counter parr.

Connections between large P.C.B.s and small circuit boards are illustrated on the large P.C.B. Schematics.

Use the interconnection schematic diagram to find the connection between associated connectors.

Exampl

The connections between C.B.A.s are as shown below.



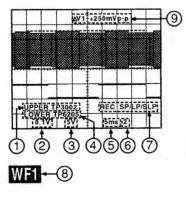
5. Indication for Zener Voltage of Zener Diodes

The Zener Voltage of Zener Diodes are indicated as such on Schematic Diagrams.

Example:

(6.2V).....Zener Voltage

6. How to Read Waveforms



- ① Connecting Point
- ② Volts/Div ③ Volts/Div
- 4 Connecting Point
- 5 Time/Div
- Trigger Channel of the scope (1:UPPER,2:LOWER)
- Operation Mode of VCR
- Waveform Point on Schematic
- Δ V1:Peak to Peak

7. Parts enclosed in dashed lines marked "Z" are not used in any models included in this service manual.

Example: C3010 0.01 11 R3002 Z

8. Reference No. on C.B.A. is abbreviated as follows.

Power Supply	1000 series	System Control	6000 series
Capstan	2500 series	Servo	6200 series
Cylinder		Timer	6300 series
Motor Drive	2600 series	/Operation	7500 series
Video	3000 series	Demodulator	7000 series
TBC	3200 series	S-VHS	8000 series
Audio	4000 series	CCV	8500 series
Hi-Fi Audio	4200 series		

Example:

Section	Reference No.		
	Schematic	C.B.A.	
Power Supply	R1002	R2	
Capstan	R2502	R2	
Cylinder			
Motor Drive	R2602	R2	

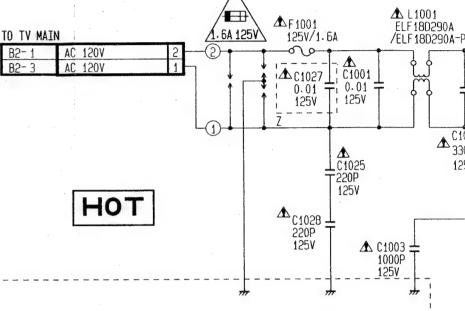
Comparison chart of models & marks used _ in Schematic and C.B.A. Diagrams

MODEL	MARK	MODEL	MARK
PV-M1324 PV-M1324W VV134 VV134W Not used in any models	A B C D	PV-M2024 VV204 VV204W PV-M2044	пнОп

Note: Refer to item 9 for mark "Z".

POWER SUPPLY SCHEMATIC [





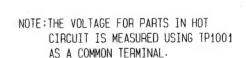
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD.

REPLACE ONLY WITH THE SAME TYPE 1.6A 125V FUSE.

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES

D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME

TYPE 1.6A 125V



IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN A HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

A B

1

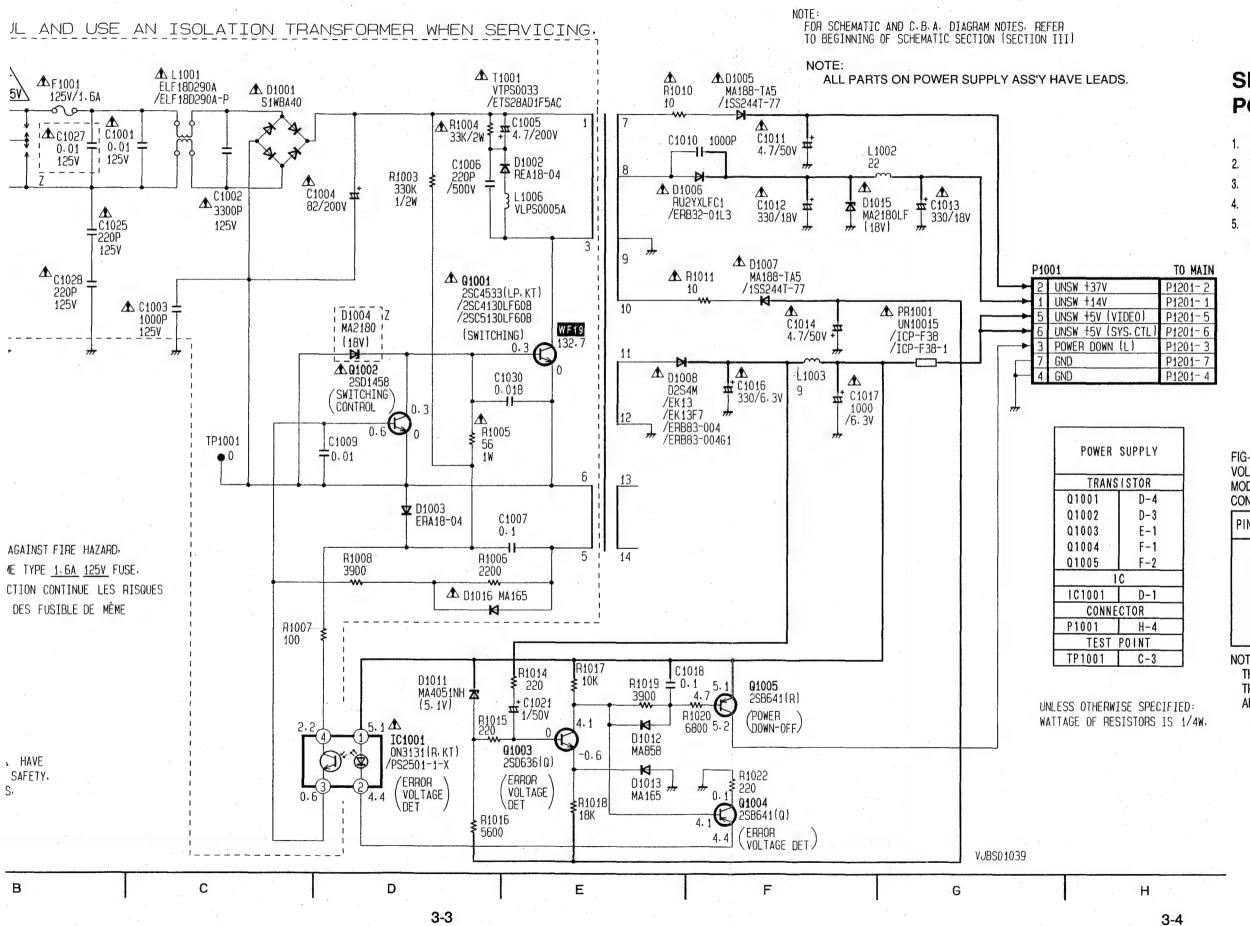
5

4

3

2

SCHEMATIC DIAGRAM



SERVICE CAUTION SERVICE PROCEDURE FOR POWER SUPPLY ASS'Y

- 1. CHECK VOLTAGE AT PINS OF P1201 ON THE MAIN C.B.A. (SEE FIG-1)
- 2. DISCONNECT AC PLUG AND REMOVE THE FLAT CABLE FROM P1201
- SHORT CHECK AT TERMINAL OF P1201 ON THE MAIN C.B.A. (SEE FIG.
- 4. REPAIR THE MAIN C.B.A.
- REMOVE THE SHIELD CASE FROM THE POWER SUPPLY ASS'Y AND RECONNECT THE FLAT CABLE WITH P1201 FOR REPAIR.

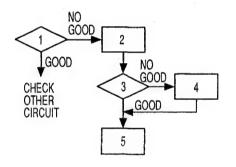


FIG-1 VOLTAGES IN STOP MODE UNDER NORMAL CONDITIONS

PIN NO.	VOLTAGE
1 2 3 4 5 6 7	13.5V 36.5V 5.2V 0V 5.2V 5.2V 0V

NOTE: THE VOLTAGES OF THIS TABLE ARE APPROX.

FIG-2 RESISTANCE UNDER NORMAL CONDITIONS.

PIN NO.	RESISTANCE
1	MORE THAN 30Ω
2	MORE THAN 500Ω
3	MORE THAN 500Ω
4	
5	MORE THAN 25Ω
6	MORE THAN 25Ω
7	
IOTE:	

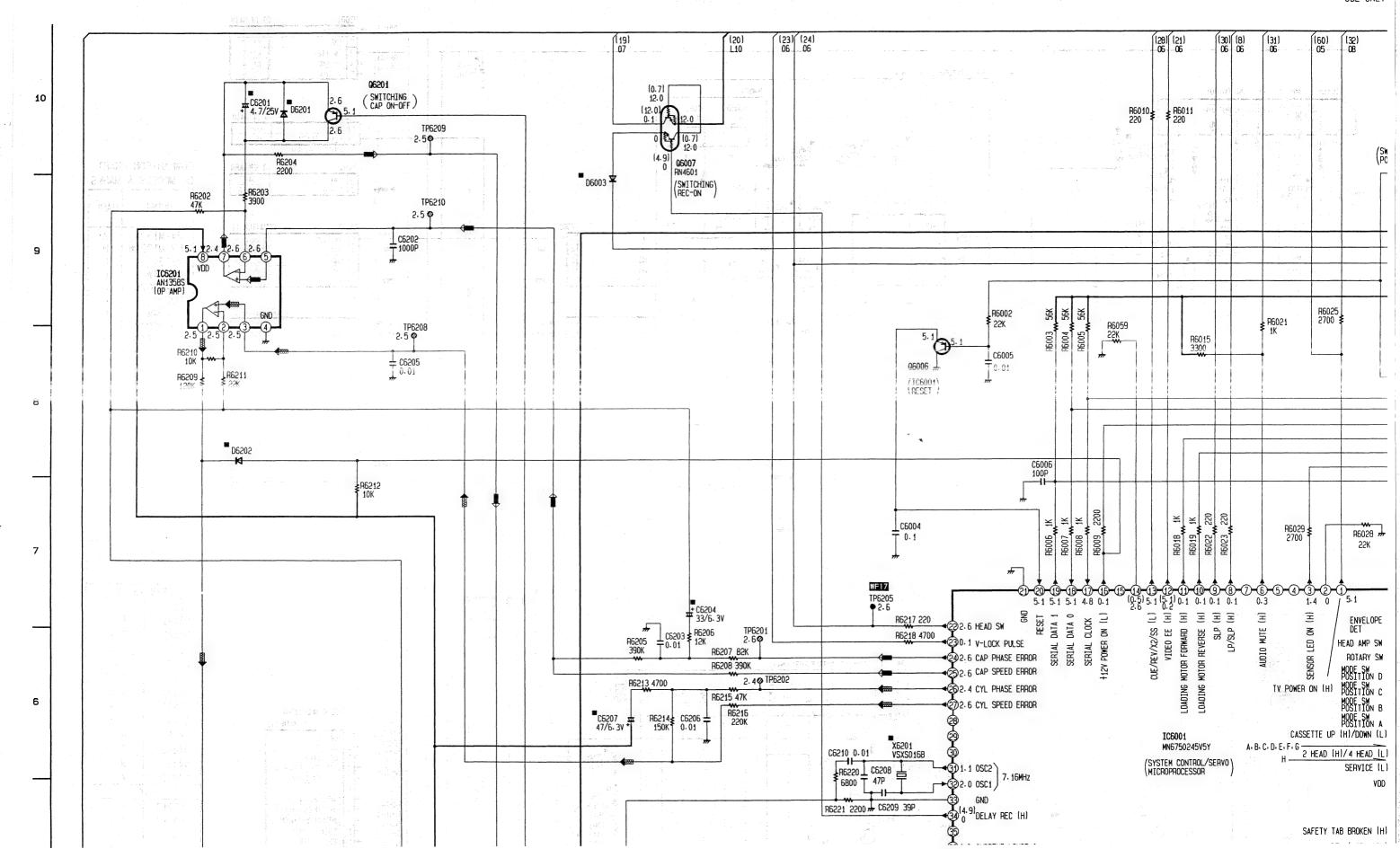
OTE:

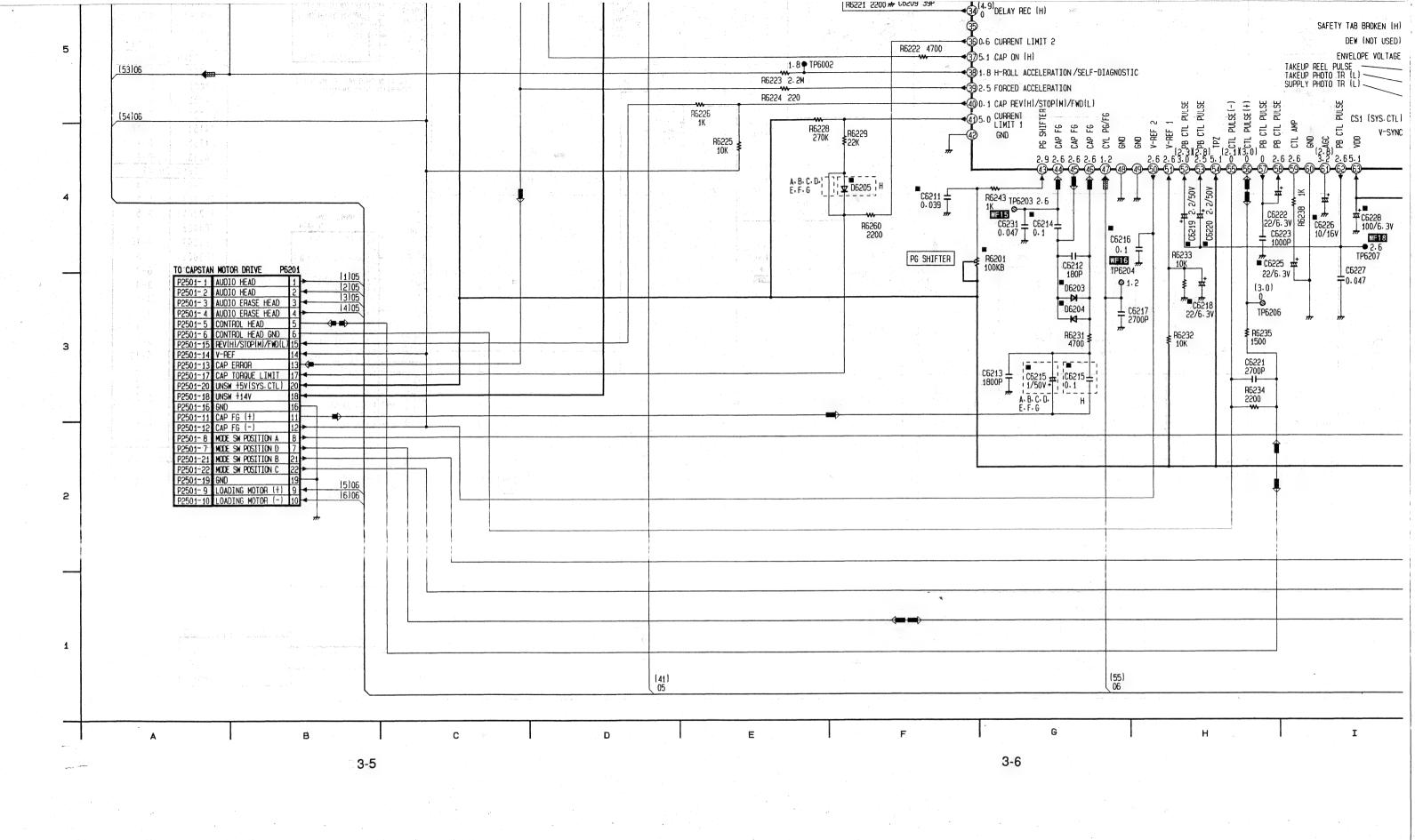
- PIN 4 OF THE TERMINALS
 SHOULD BE GROUND IN
 THIS MEASUREMENT.
 RESISTANCES IN THIS
- 2. RESISTANCES IN THIS TABLE ARE APPROX.

MAIN I (POWER SUPPLY/CYLINDER DRIVE/SYSTEM CONTROL/SERVO) SCHEMATIC DIAGRAM

← CAPSTAN SERVO ← CYLINDER SERVO

IMPORTAN COMPONEN SPECIAL (WHEN REPL USE ONLY





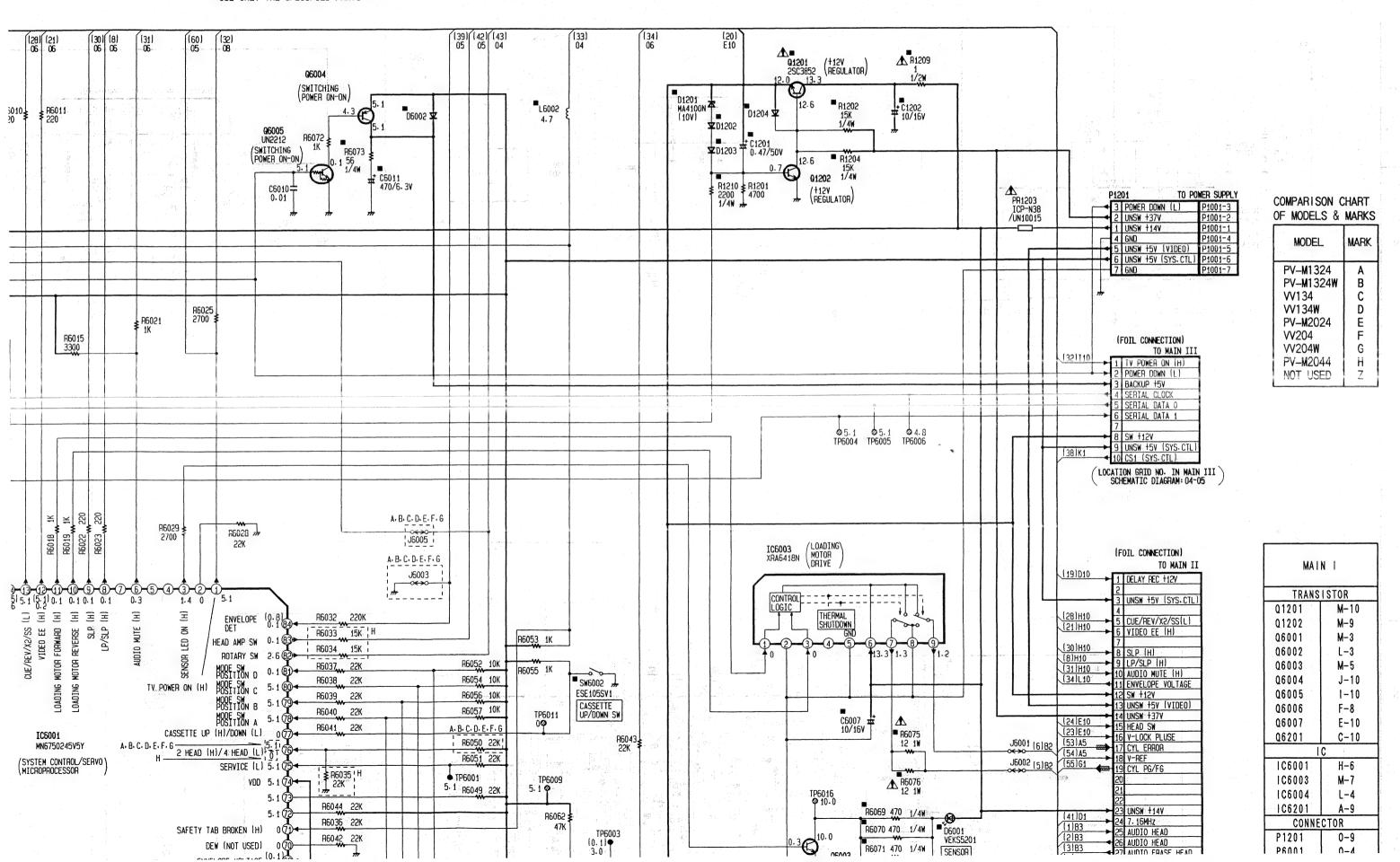
IMPORTANT SAFETY NOTICE:

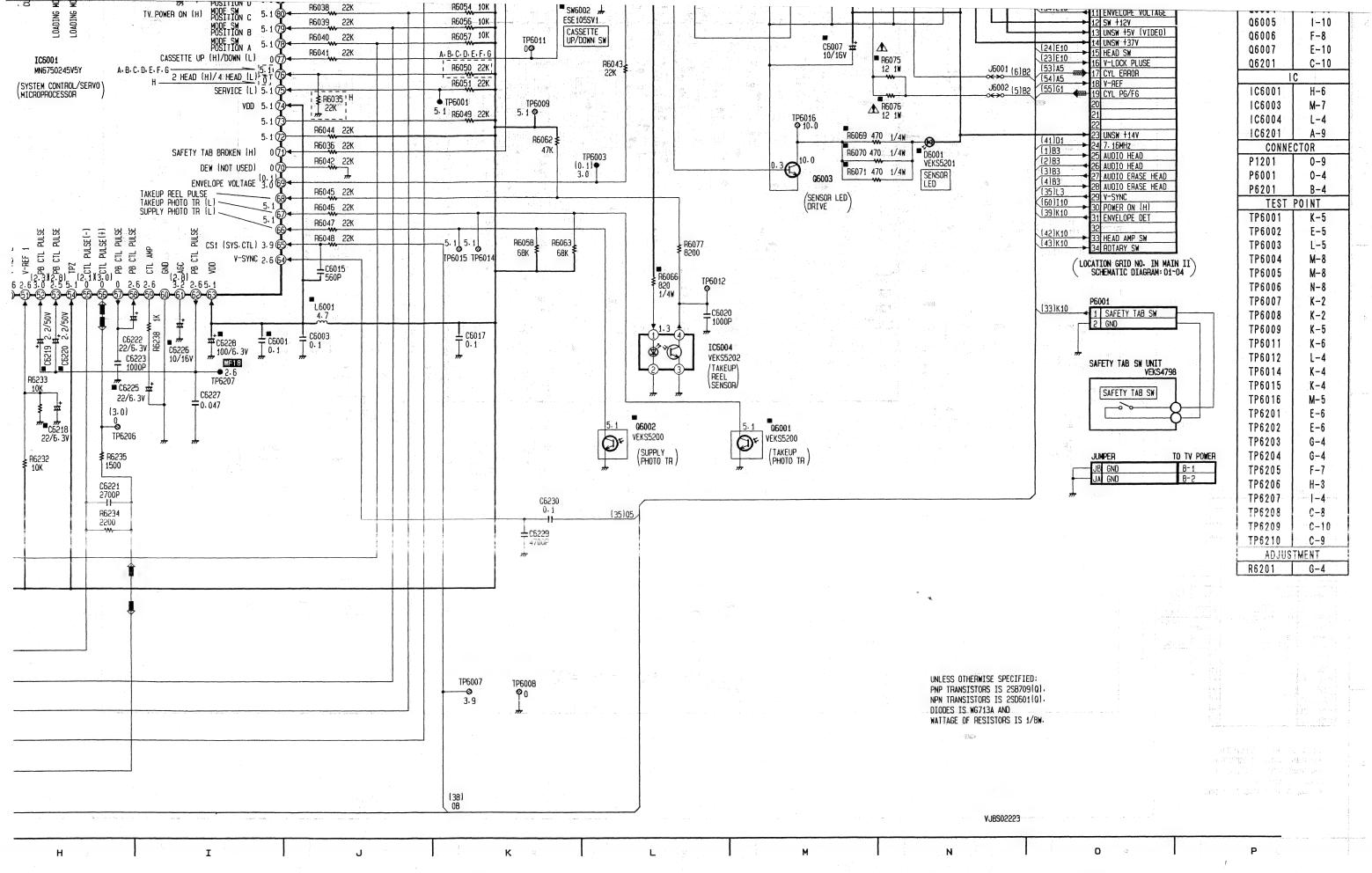
COMPONENTS IDENTIFIED BY THE SIGN A HAVE

SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETYWHEN REPLACING ANY OF THESE COMPONENTS.

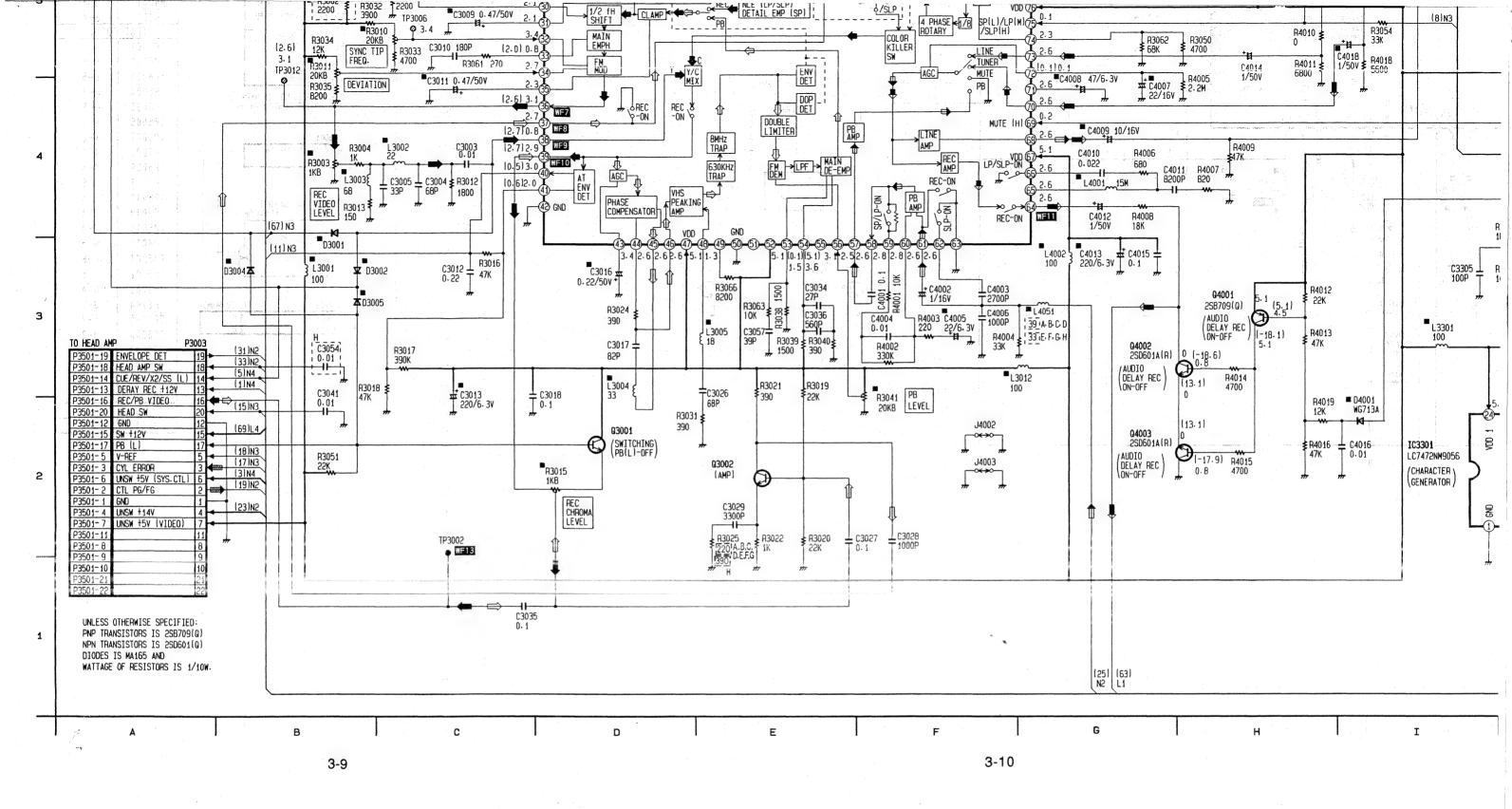
USE ONLY THE SPECIFIED PARTS.

NOTE:
FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES REFER
TO BEGINNING OF SCHEMATIC SECTION (SECTION III)





NOTE: FOR SCHEMATIC AND C.B.A. DIAG TO BEGINNING OF SCHEMATIC SEC PB VIDEO SIGNAL REC VIDEO SIGNAL CYLINDER SERVO REC AUDIO SIGNAL PB AUDIO SIGNAL L3206 WF14 TP4002 AN5265 (TV SOUND OUTPUT) 10 R4030 39K C4030 T 0.033 0.1 B4152 R3201 820 FL4001 VLFS0014 +C4156 470/25V 15.75KHZ TRAP C4157 0.047 7 C4155 4.7/25V GND GND VDD VDD GND IC3201 ₹ R3601 \$ 330 CCD 1H DELAY R4161 MN3870S C3604 C4151 10/16V R4151 560 R4031 470/25V (CCD 1H) 470/6.3V CCD 1H DELAY ₹ R4159 10 1/4W Q3601 (BUFFER) R4160 [390] **★** D3602 MA4130-M (13V) C3208 : A. B. C. D 1 3900 ₹ R3203 2.2M E.F.G.H ! 1800 C3015 2.2/50V (16) (129) (LPF) N3 N2 R3027 R3028 3300 10K A.B. C. D. E.F.G (60) N4 R3052 TP3010 D3007 MA4091-M (9.1V) I C3021 SWITCHING CUE/REV/X2 /SS(L)-ON ■D3006 **▼** C3022 2-2/50V+ R3036 1 27K R3030 1.5M #R3029 470K C3023 D3003 R3045 10K C3024 10/16V R3037 R3043 39K IC3001 UN2113 /SWITCHING LP/SLP-OFF SP-ON (LUMINANCE /CHOMINANCE/AUDIO /MAIN PROCESS C3049 C3050 0.1 2.2/50V LEVEL R3049 1200 ₹ R3044 2.2M C3048 3900P C3051 220/6.3V R3047 C3046 5600 3.3/50V C3047 R3006 10K R402 47K 1/41 C401S 0.01 TP3005 2.10 L3013 (9)N3 R3053 33K R3009 2200 3900 TP3006 VDD 76 → 1 4 PHASE ← 1/A 5P(L)/LP(M)/79 → 0.1 (B)N3

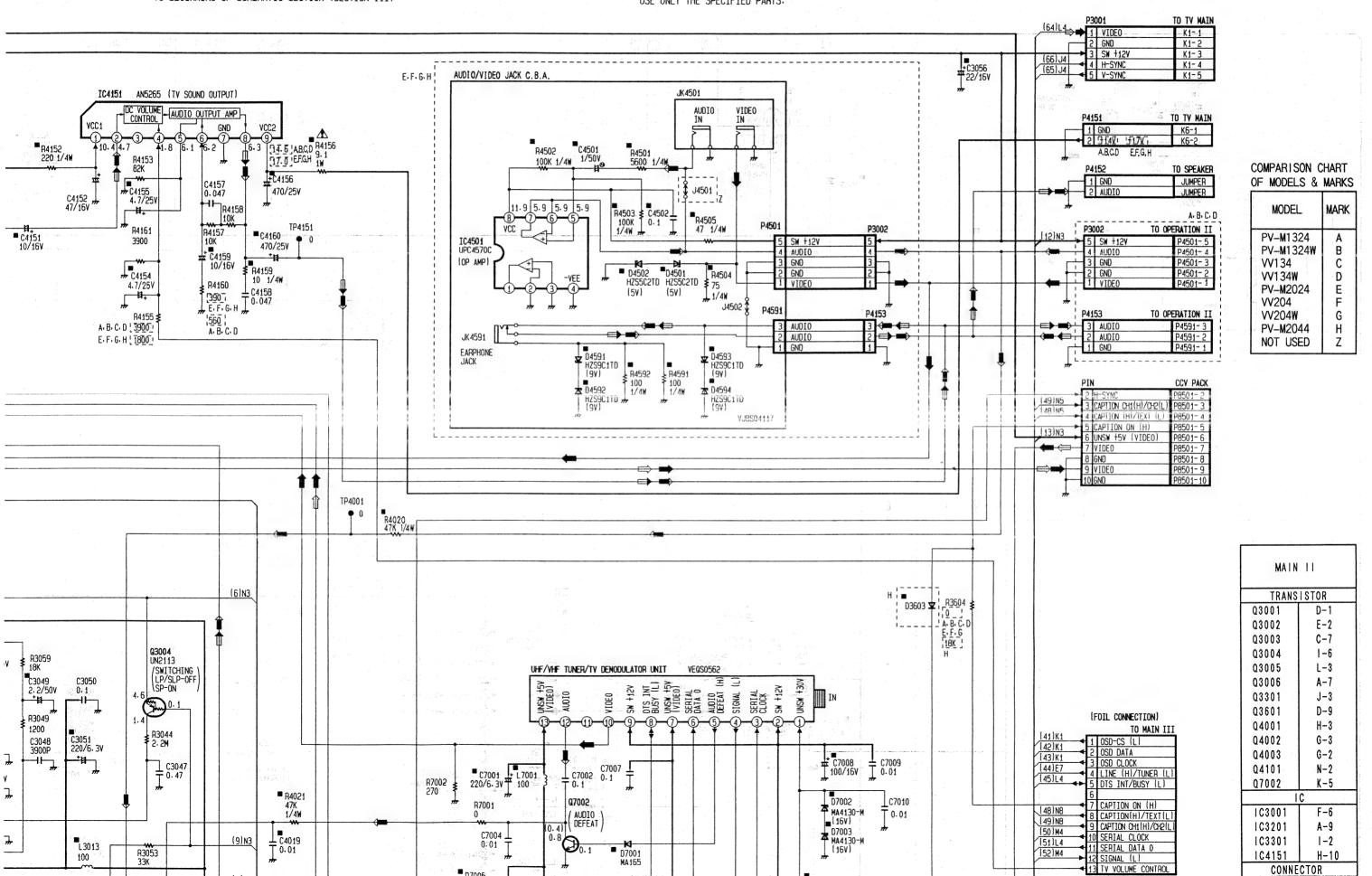


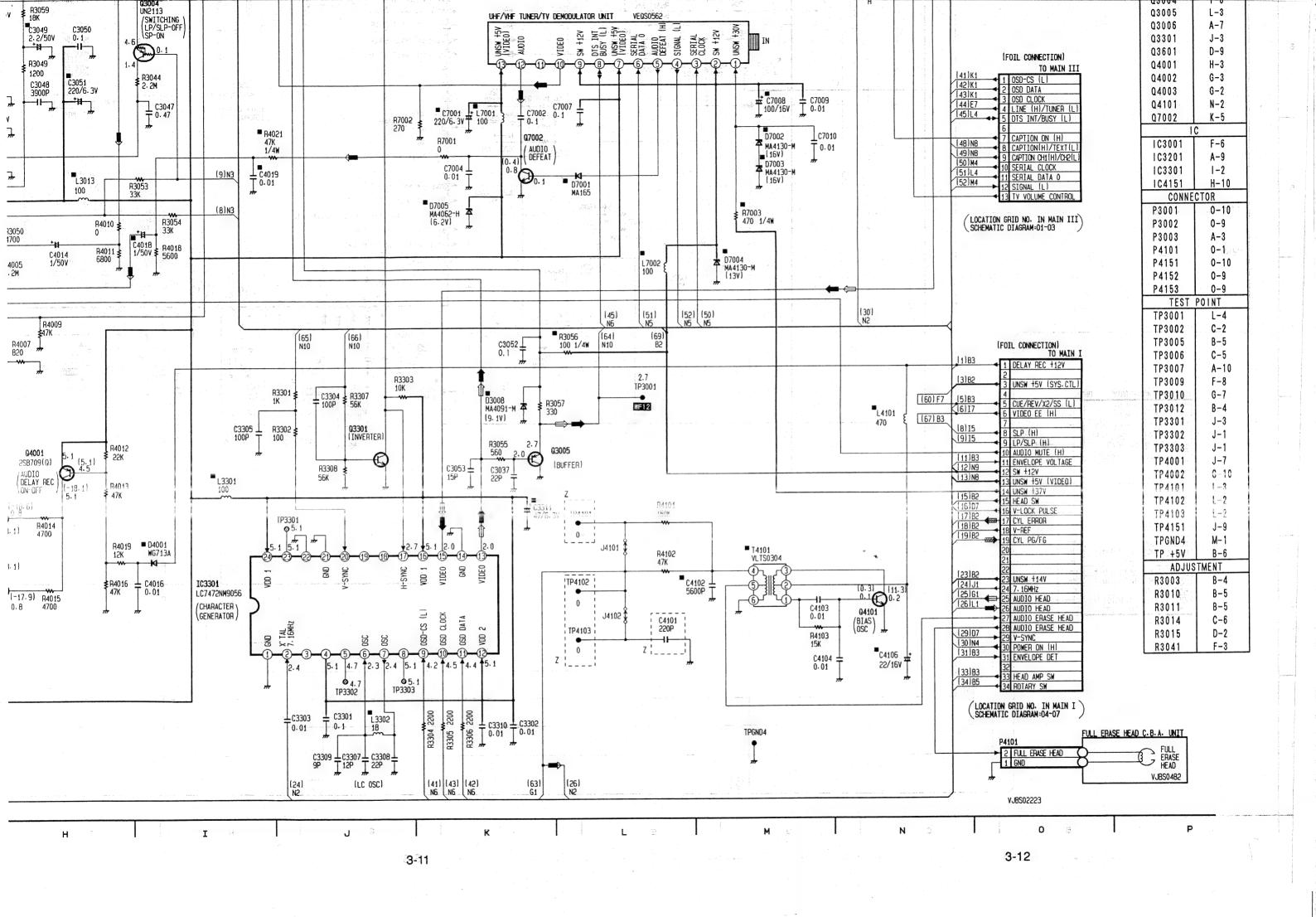
NOTE:
FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES REFER
TO BEGINNING OF SCHEMATIC SECTION (SECTION III)

IMPORTANT SAFETY NOTICE:

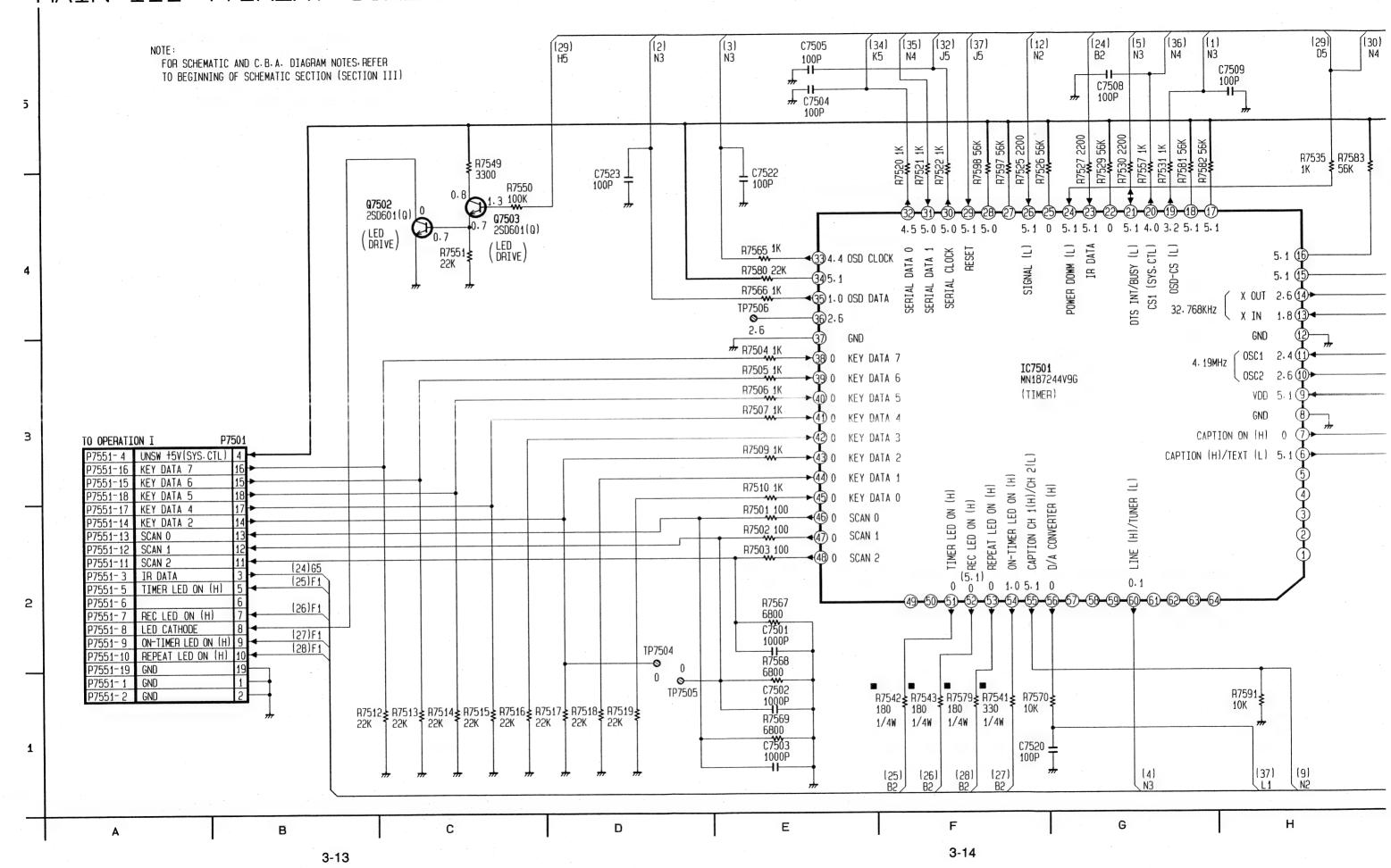
COMPONENTS IDENTIFIED BY THE SIGN A HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS.
USE ONLY THE SPECIFIED PARTS.

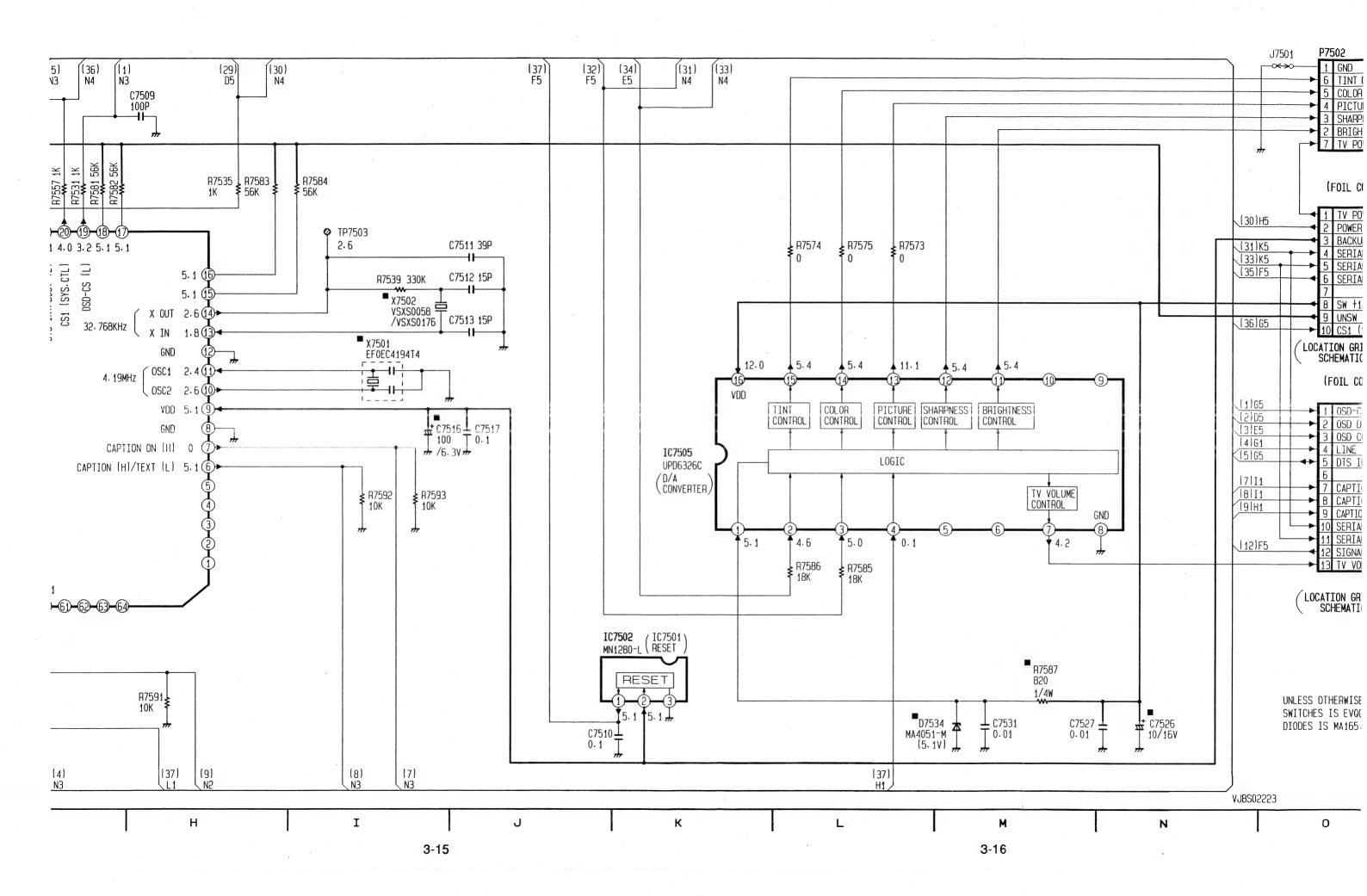
MÀIN AN SPORED SUPPENY OVERNADER SET VERSYSTEM CONTROLLASSENO DECRENO DE SOREMÀTE DE MARINA DE MÀIN

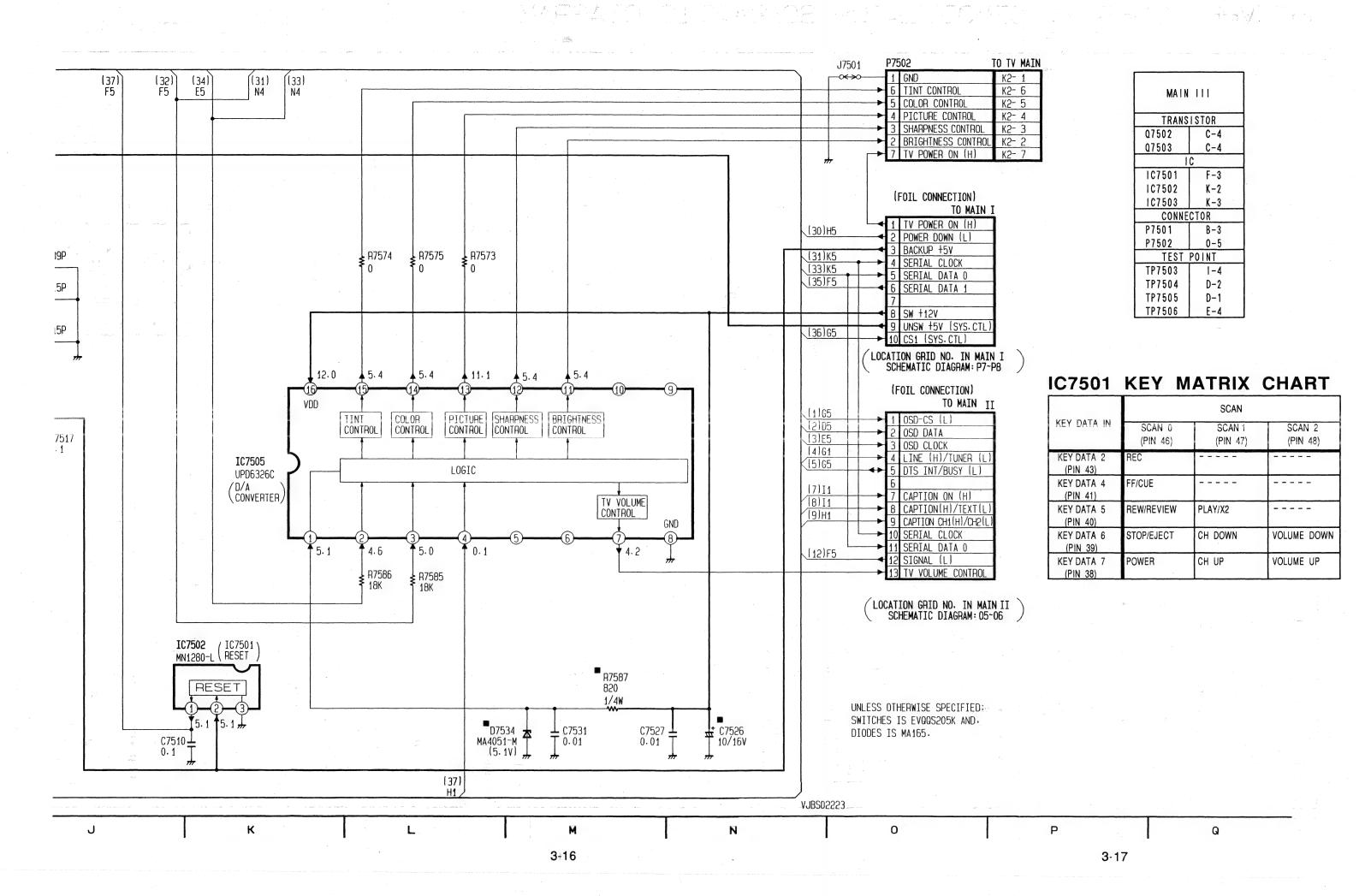


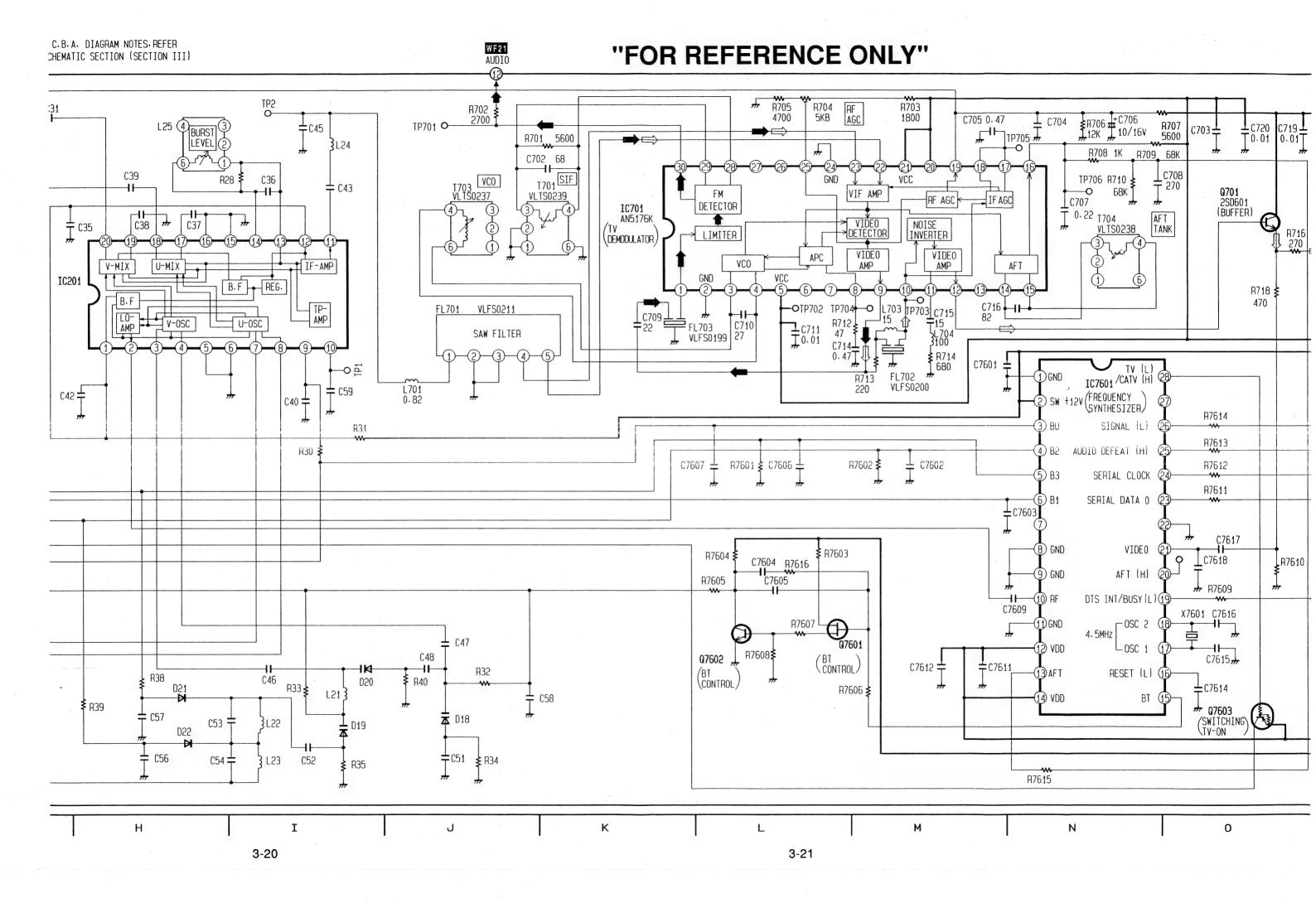


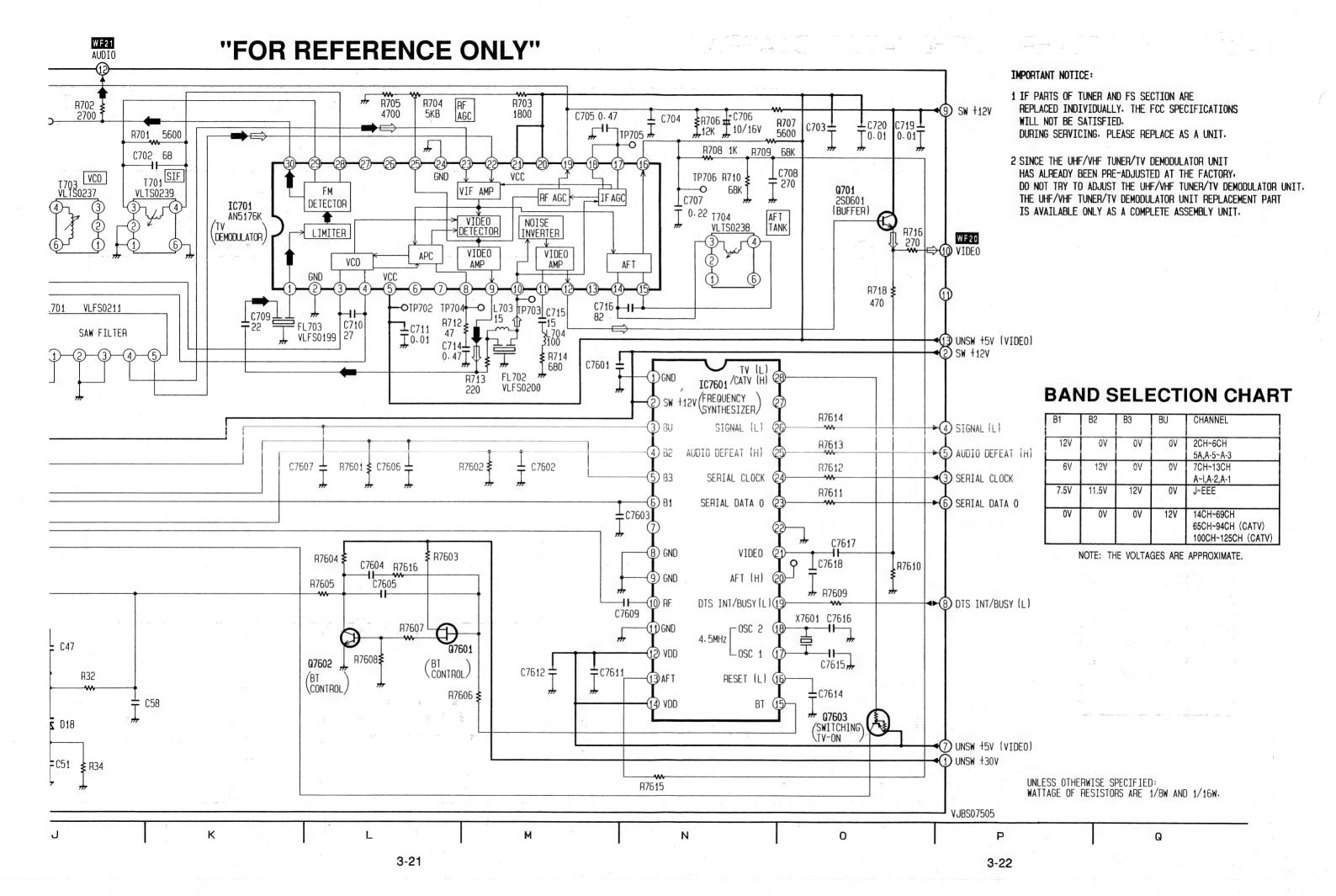
MAIN III (TIMER) SCHEMATIC DIAGRAM



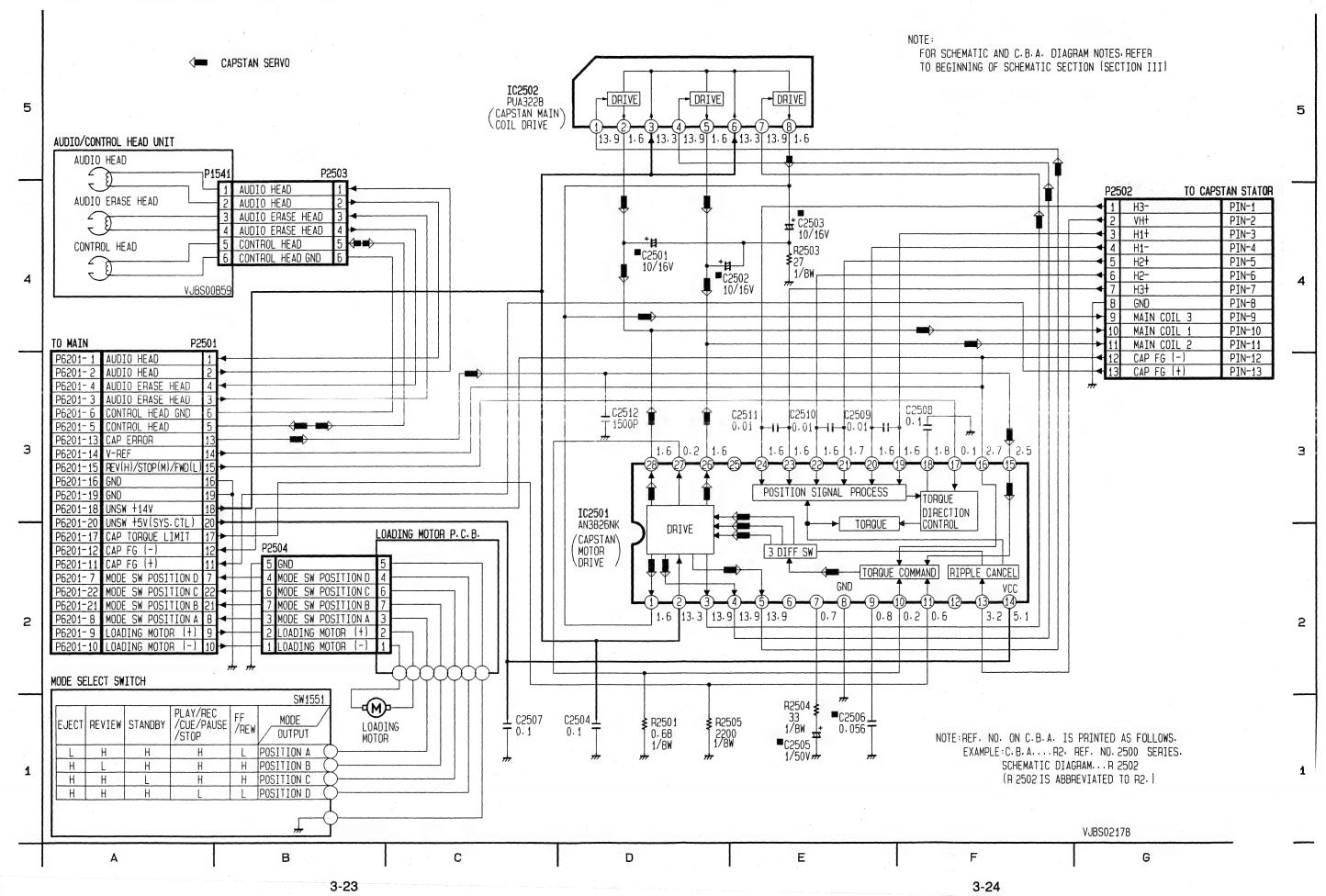




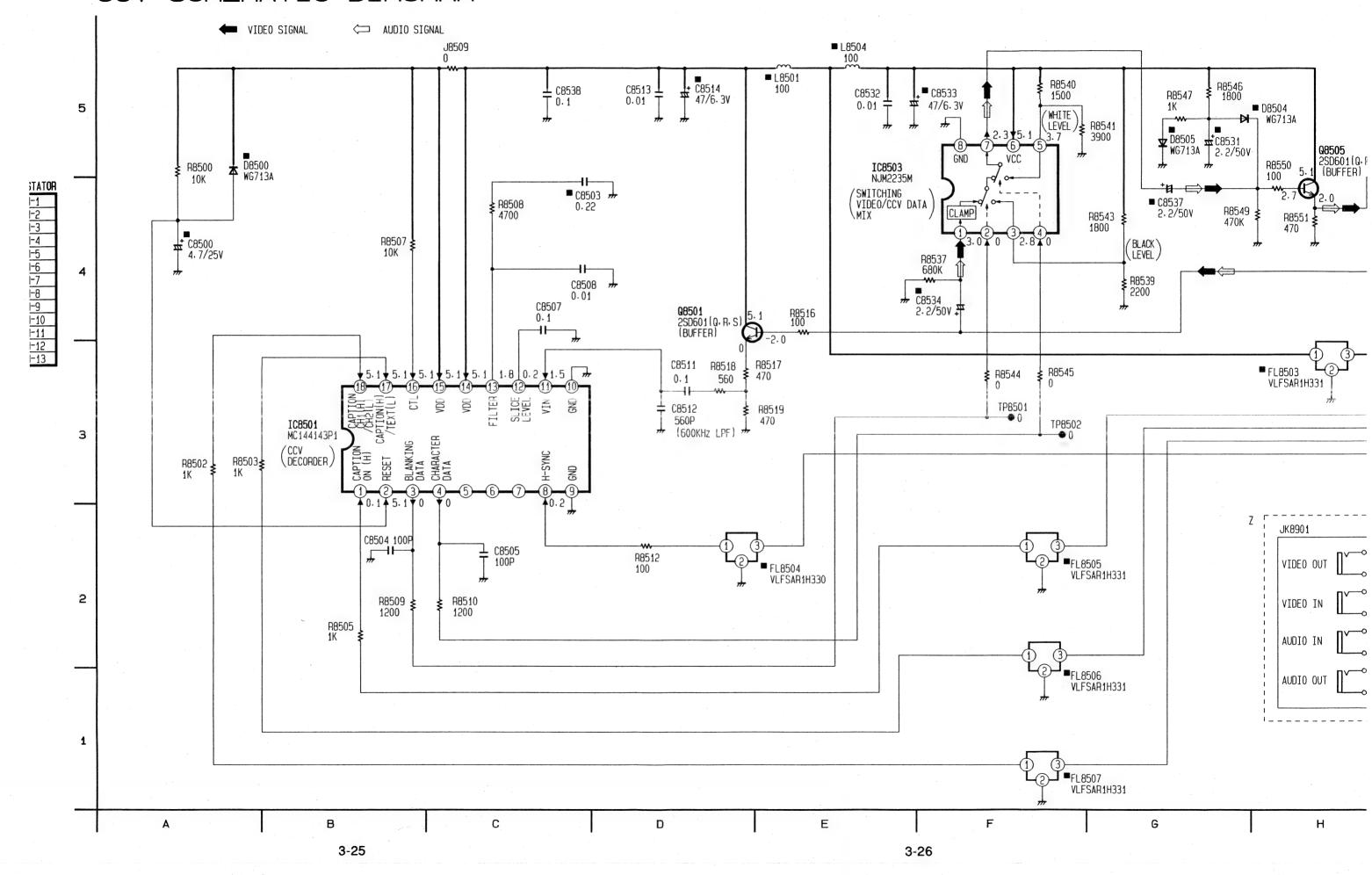


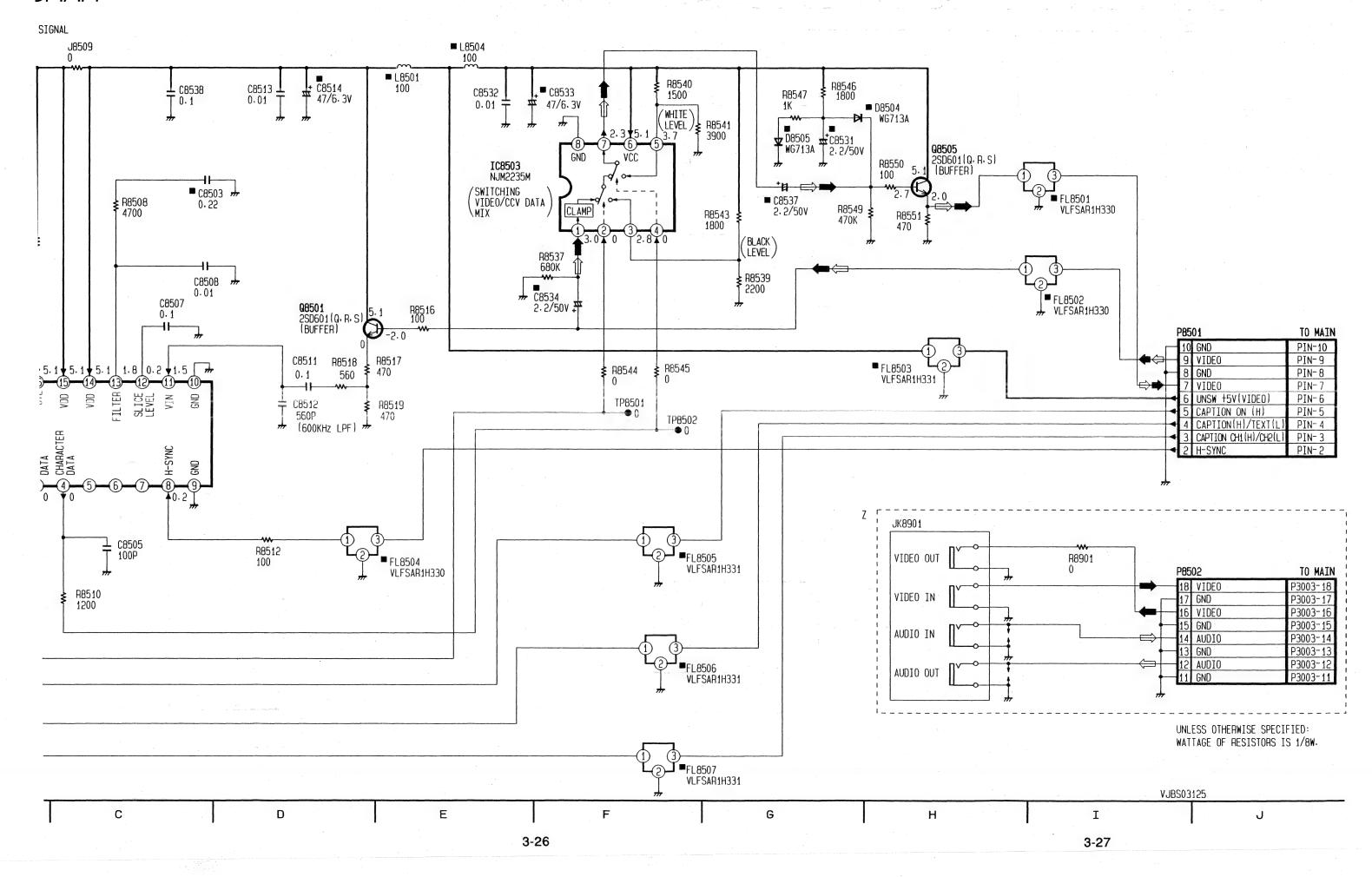


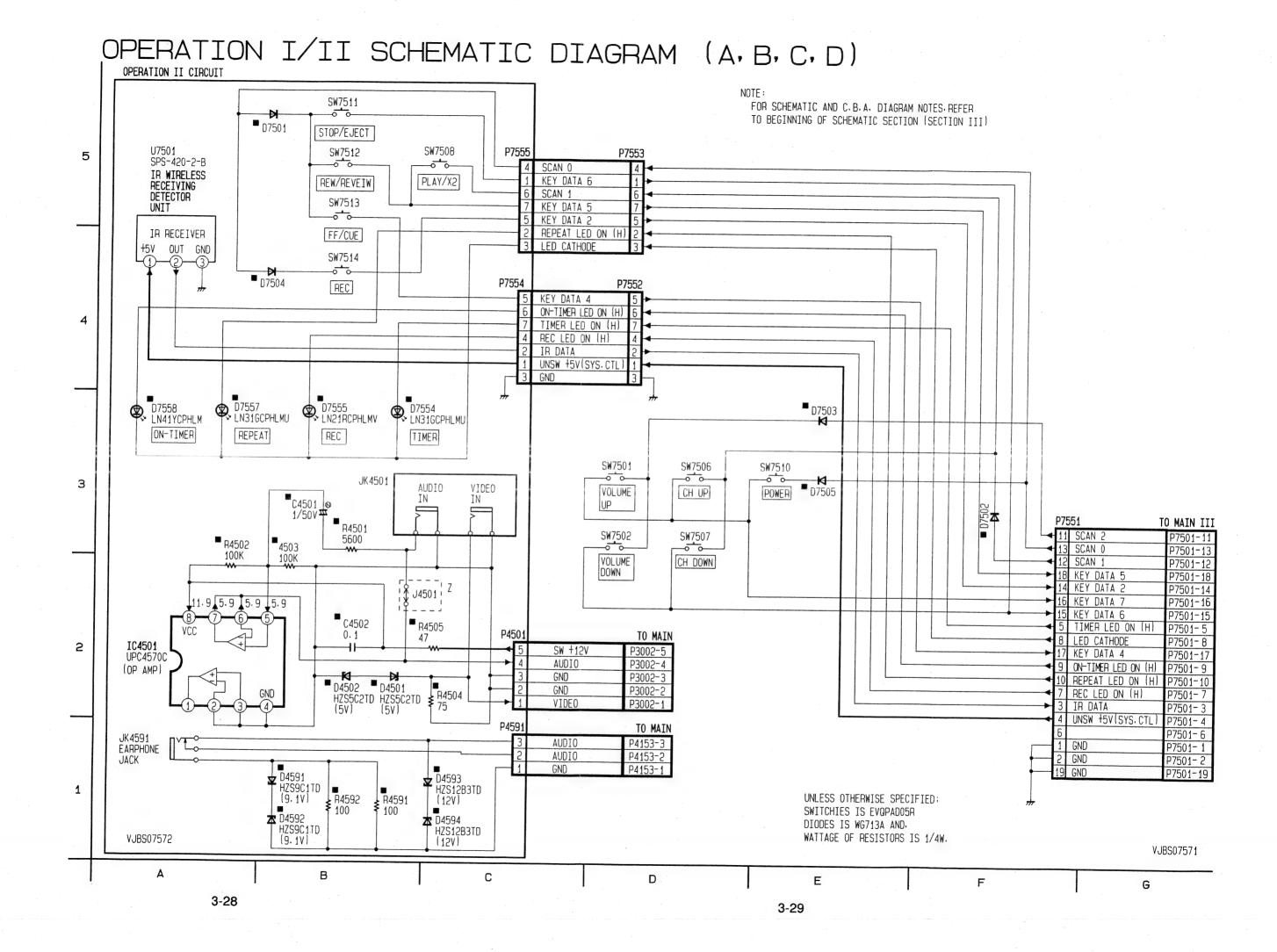
CAPSTAN MOTOR DRIVE SCHEMATIC DIAGRAM



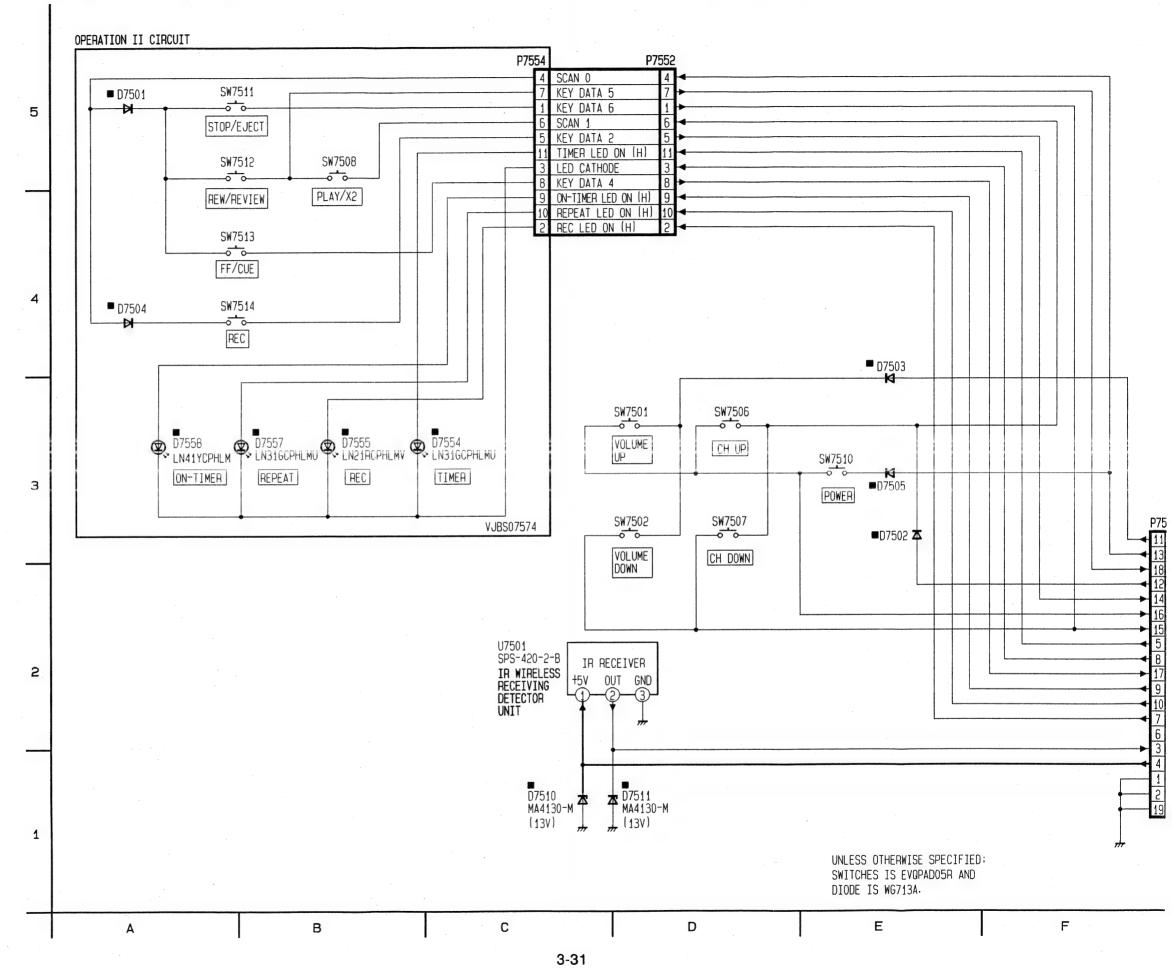
CCV SCHEMATIC DIAGRAM







OPERATION I/II SCHEMATIC DIAGRAM (E, F, G, H)

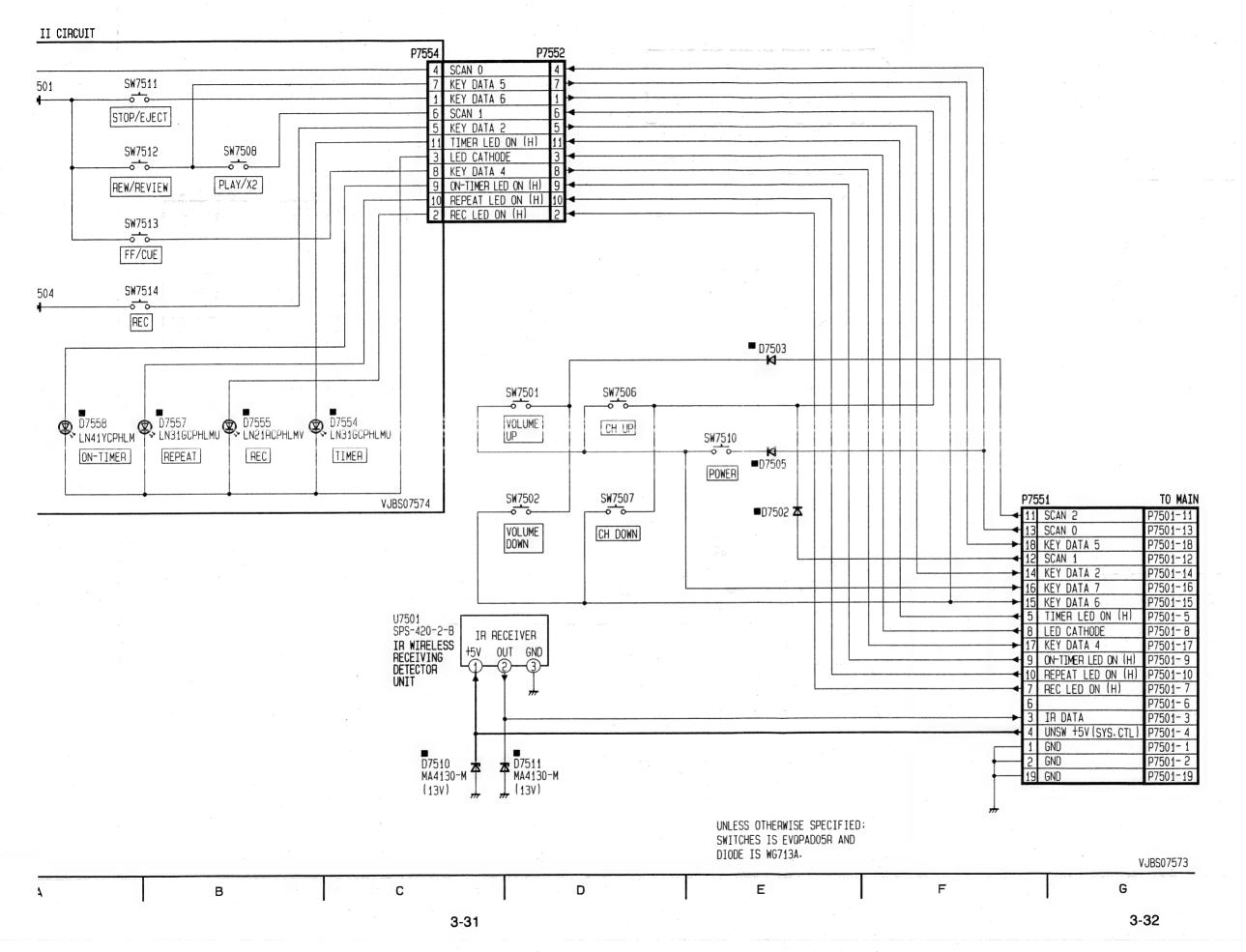


TO MAIN III P7501-11 P7501-13 P7501-12 P7501-18 P7501-14 P7501-16 P7501-15 D ON (H) P7501-5 P7501-8 P7501-17 LED ON (H) P7501-9 ED ON (H) P7501-10 ON (H) P7501-7 P7501-3 (SYS. CTL) P7501-4 P7501-6 P7501- 1 P7501-2 P7501-19

VJBS07571

G

ATION I/II SCHEMATIC DIAGRAM (E, F, G, H)



COMPARISON CHART OF MODELS & MARKS

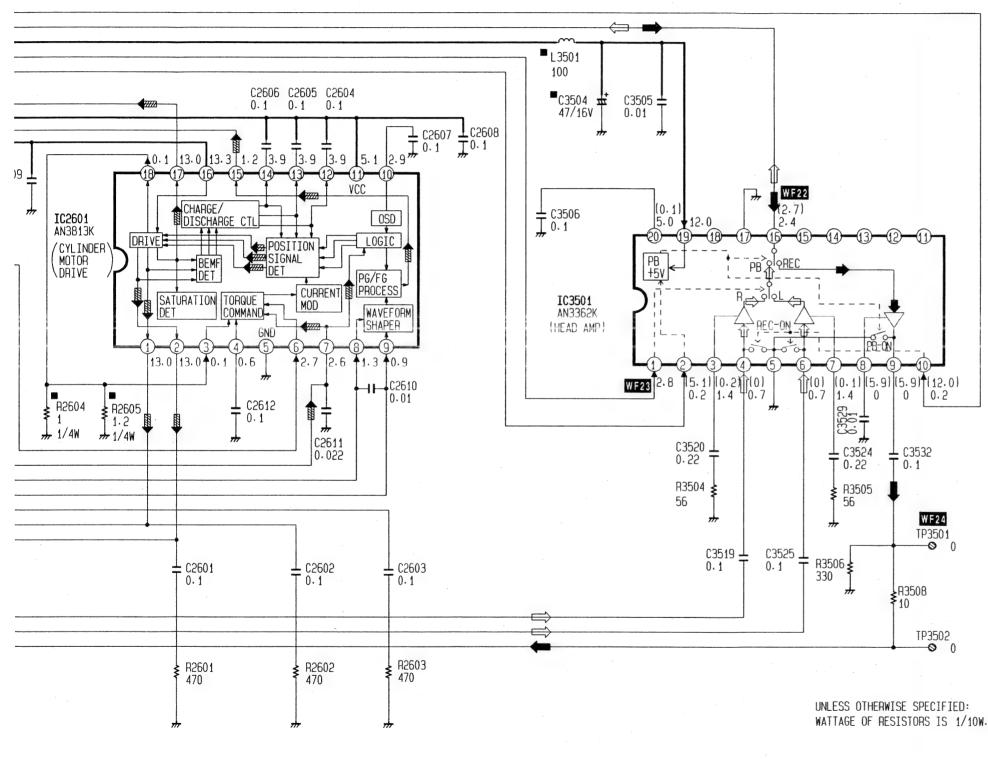
MODEL	MARK
PV-M1324 PV-M1324W VV134 VV134W PV-M2024 VV204 VV204W PV-M2044 NOT USED	A B C D E F G H Z

HEAD AMP SCHEMATIC DIAGRAM (A, B, C, D, E, F, G) REC VIDEO SIGNAL PB VIDEO SIGNAL CYLINDER SERVO NOTE: FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION (SECTION III) TO MAIN P3501 P3003-13 DELAY REC +12V P3003-16 REC/PB VIDEO P3003-15 SW +12V L3501 P3003-20 HEAD SW P3003-17 PB (L) 100 P3003-10 C2606 C2605 C2604 0·1 0·1 0·1 C3504 C3505 4 47/16V C3505 1 P3003- 9 P3003-8 C2607 C2608 C2608 C2608 C2608 P3003-1 P3003- 7 **3**0.1 | 13.0 | 13.3 | 1.2 | 73.9 | 73.9 | 73.9 | 5.1 P3003-14 C2609 <u>1</u> P3003-18 WF22 P3003-19 P3003-6 UNSW +5V (SYS.CTL) CHARGE / (0.1) 5.0 \ 12.0 CHARGE/ DISCHARGE CTL BEMF DET IC2601 P3003- 2 CTL PG/FG AN3B13K P3003- 4 UNSW +14V LOGIC POSITION SIGNAL /CYLINDER P3003- 1 GND MOTOR P3003- 5 V-REF P3003-3 CYL ERROR PG/FG CURRENT PROCESS P3003-12 GND SATURATION TORQUE IC3501 P3003-21 WAVEFORM AN3362K SHAPER (HEAD AMP) 3 13.0 13.0 0.1 0.6 ↑2.7 |2.6 ↑1.3 **↑**0.9 WF23 2.8 15.1) (0.2) (0) 0.2 1.4 (0.7) $\begin{array}{c|c} \hline 1(0) & (0.1) & (5.9) & (5.9) \\ 0.7 & 1.4 & 0 & 0 \end{array}$ C2610 0.01 R2604 R2605 1.2 1/4W ± C2612 T 0.1 0.01 R2606 560 1/4W TO D.D CYLINDER P3502 C3520 ± C2611 - C3524 PIN- 8 UNSW +14V 0.022 0.55 T 0.22 PIN- 4 PIN- 6 HE+ R3504 € ₹ R3505 56 PIN- 1 MAIN COIL 3 MAIN COIL 2 PIN- 2 PIN- 3 NAIN COIL 1 VH+ PIN-5 2 C3519 | C3525 | 0.1 T PIN- 7 GND R3506 \$ ± C2601 T 0⋅1 ± C2602 T 0⋅1 ± C2603 T 0⋅1 UPPER CYLINDER ₹R3508 10 PIN P3503 VIDEO R HEAD VIDEO L HEAD VIDEO L HEAD TP3 VIDEO L/R HEAD R2603 470 R2601 470 ₹ R2602 470 VIDEO R HEAD UNLESS OTHERWISE SPE 1 WATTAGE OF RESISTORS В С Ε F D G Н 3-33 3-34

1 (A, B, C, D, E, F, G)

3 SERVO

NOTE:
FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES REFER
TO BEGINNING OF SCHEMATIC SECTION (SECTION III)



COMPARISON CHART OF MODELS & MARKS

OF MODELS &	MARKS
MODEL	MARK
PV-M1324	Α
PV-M1324W	В
VV134	C
VV134W	D
PV-M2024	Ε
VV204	F
VV204W	G
PV-M2044	Н
NOT USED	Z

HEAD AMP		
IC		
IC2601	D-4	
103501	F-3	
CONNECTOR		
P3501	B-5	
P3502	B-3	
P3503	B-2	
TEST POINT		
TP3501	H-2	
TP3502	H-1	

I J

VJBS0563

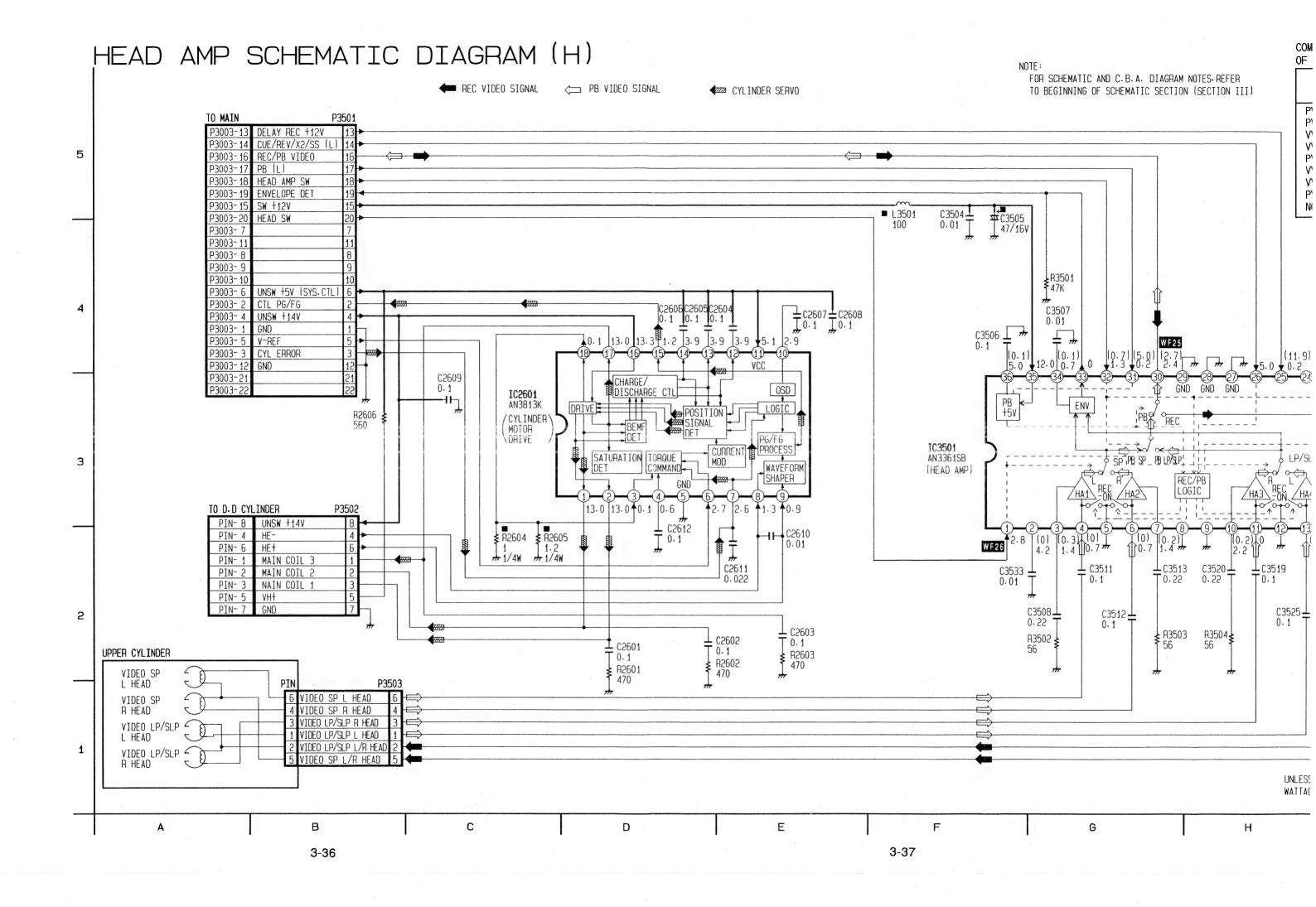
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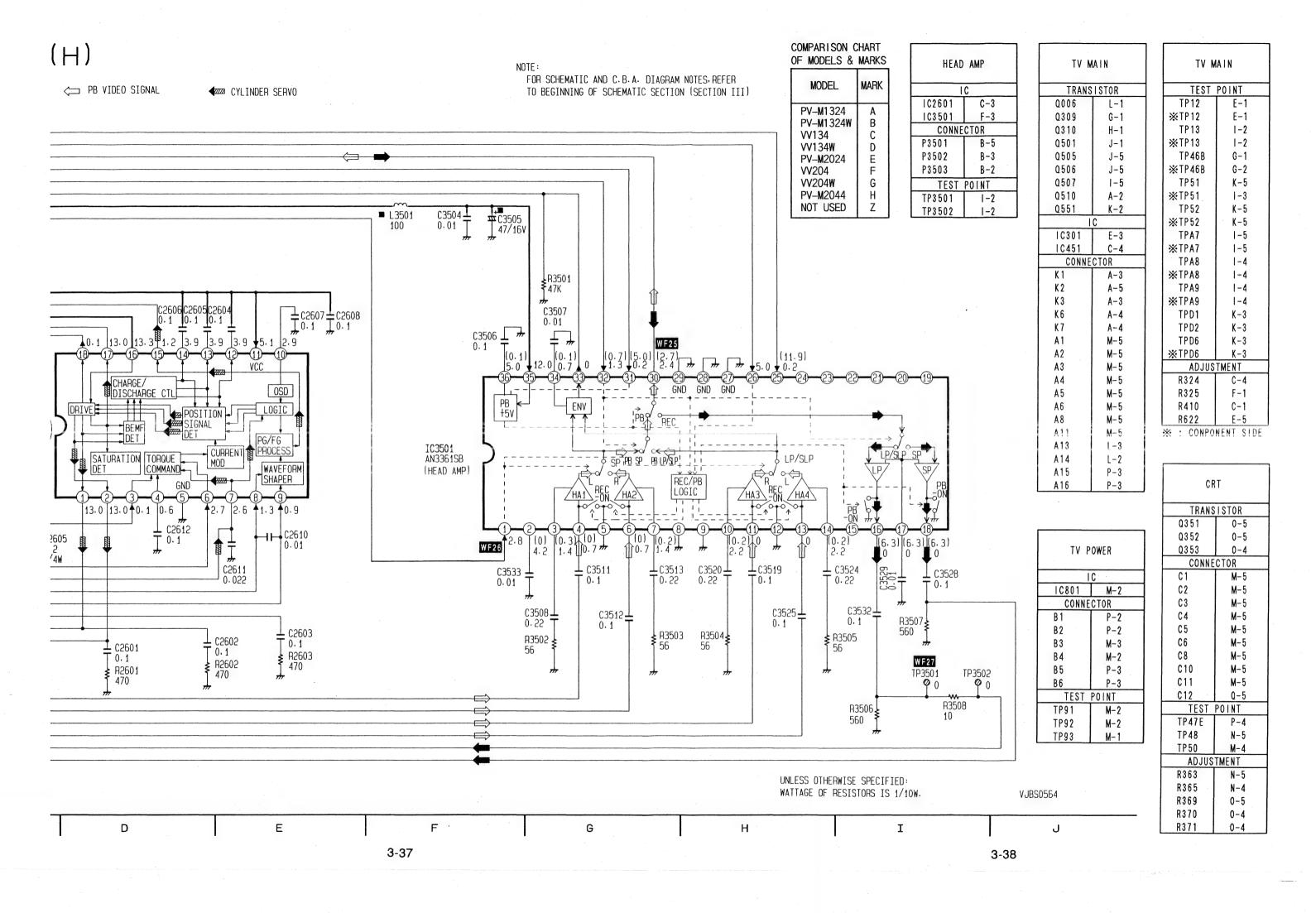
3-34

Ε

D

3-35





TV MAIN/TV POWER/CRT SCHEMATIC DIAGRAM (A, B, C, D) FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION (SECTION III) VIDEO SIGNAL TO VCR MAIN (BLUE MIX AMP) TINT CONTROL R417 560 C410 R626 R625 R624 R624 R624 COLOR CONTROL 4700P R629 27K (4) E1 PICTURE CONTROL ------R307 ₹ 3900 100K R301 P7502-SHARPNESS CONTROL J91 R366 R316 R314 ¥ 3900 ₹ R314 ¥ N N 33K C416 1200 BRIGHTNESS CONTROL 18K D603 D602 R627 # C611 20KB 0.056 C6091 R302 TV POWER ON (H) C511 <u>-</u> 2700PT **∑** J92 3300 R504 15K 100K 33P 2.2/500 SUB---- $\frac{1}{2} \frac{1}{1800P} \frac{1}{1800P}$ P7502- 1 ₹ R310 1200 C513 1200P R631 R630 R628 R628 R628 R628 R628 R628 0352 125. 7 (GREEN MTV TINT (14)H5 **₹** 3900 ₹ R415 ₹ 39K R304 39K R610 € 470K ₹ R311 39K J 10KB ₹ R623 ₹ 18K (MIX AMP) K6 TO VCR MAIN ₹R411 22K SUB-C417 ₩ C301 R349 \$ BRIGHTNESS P4151-2 +14V C406 +C507 3.3/50V 1/50V + 3. 3/50V 1200P (15)^{10K} 4.7/25V P4151-1 GND (17) (18) (12) E2 L4 (30) H1 (11) R367 (10) . C506 T 0.047 1200 | **R**443 R506 4.7/25V 2200 15K R614 C614 L601 2200 ₹ 56P T 10 ₹R519 150K R416 R425 ⚠ IC451 LA7835 (VERTICAL DEFLECTION OUT) +140 550 4700 | 560K 560P GND (MIX AMP) C508 C508 VERTICAL DRIVE 中X501 CSB503F5 C610 1 0.01 THERMAL PROTECTION WF31 GENERATOR VERTICAL (33)14 IRIG. INPUT +14V VERT SIZE CONTROL SW PUMP UP GND VCC IC301 HORIZON-PRE DRI TRANSFORMER WI T11.7 T4.7 T6.0 6.1 T5.4 T23.4 1.8 1.5 9.6 T23.8 | 5.0 LA7621 TO VCR MAIN (22) H4 R448 LUMINANCE P3001-3 /CHROMINANCE SIGNAL PROCESS, 680K VIDEO C415 0.1/50V BRIGHT C409 C411 100/25V 10P GND P3001-R441 [5]H5 R445 C408 1/50V P3001-4 H-SYNC 100 1K P3001-5 470/16V # 11.0 6.0 11c3417 R427 D401 UNLESS OTHERWISE SPECIFIED: 6.5 7.1 7.1 5.7 | 6.5 | 7.1 | 7.1 | 7.1 | WF28 | R601 | R602 | R603 | B9 | R603 | R EM1ZV ₹ 1.5 DIODE IS MA165 AND ₹ R447 ₹ 33K (11) D4 C615 15P + # C418 WATTAGE OF RESISTORS IS 1/4W. (17) C4 100/251 **1** LB01 ELF180 **⚠** R422 ₹ (18) D4 (16)H3 100 C605 X601 V C002. 0.01 125V 10.1 C601 C602 C603 R604 ₹560K (15) B4 R413 R402 TSS816M 2700 ⊥ C315 2 R537 R536 820 18K Q510 25b 2SD636(Q) R409 R401 2.2/50 C314 10/16V ₹ 2200 390P 390P 390P 330K Δ SWITCHING ₹27K R336 ↓ 1500 **⚠** D503 C316 15P ₹ R001 8.2M X-PROTECTOR/ **⚠** R509 ERB43-04V C401 + C414 1.5/50V + 2200/16V 23.7K /ES1V D514 C530 R507 C501 R508 L303 MA 4075-HTAKT * D302 ≸ 470 100 TP46B 2.7 TP12 R414 **⚠** D85 **7.1** € 7.1 R342**5** C801 ± 50KB 6.6 **\$** 2.2 10 L302 ELT10Z3C3 WF36 Ø TP12 VERTICAL 1/2W 4700,

В

(32) H5

(1) H1

(21) H4

D

IMPORTANT SAFETY NOTICE:

USE ONLY THE SPECIFIED PARTS.

1

COMPONENTS IDENTIFIED BY THE SIGN A HAVE

SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.

WHEN REPLACING ANY OF THESE COMPONENTS,

R325

: R335

(10) (26) E4 M5

820

1KB

CONTRAST

R327 🛊

10K

Ε

R394 R345

10K 270

(23) (27) K5

G

M5

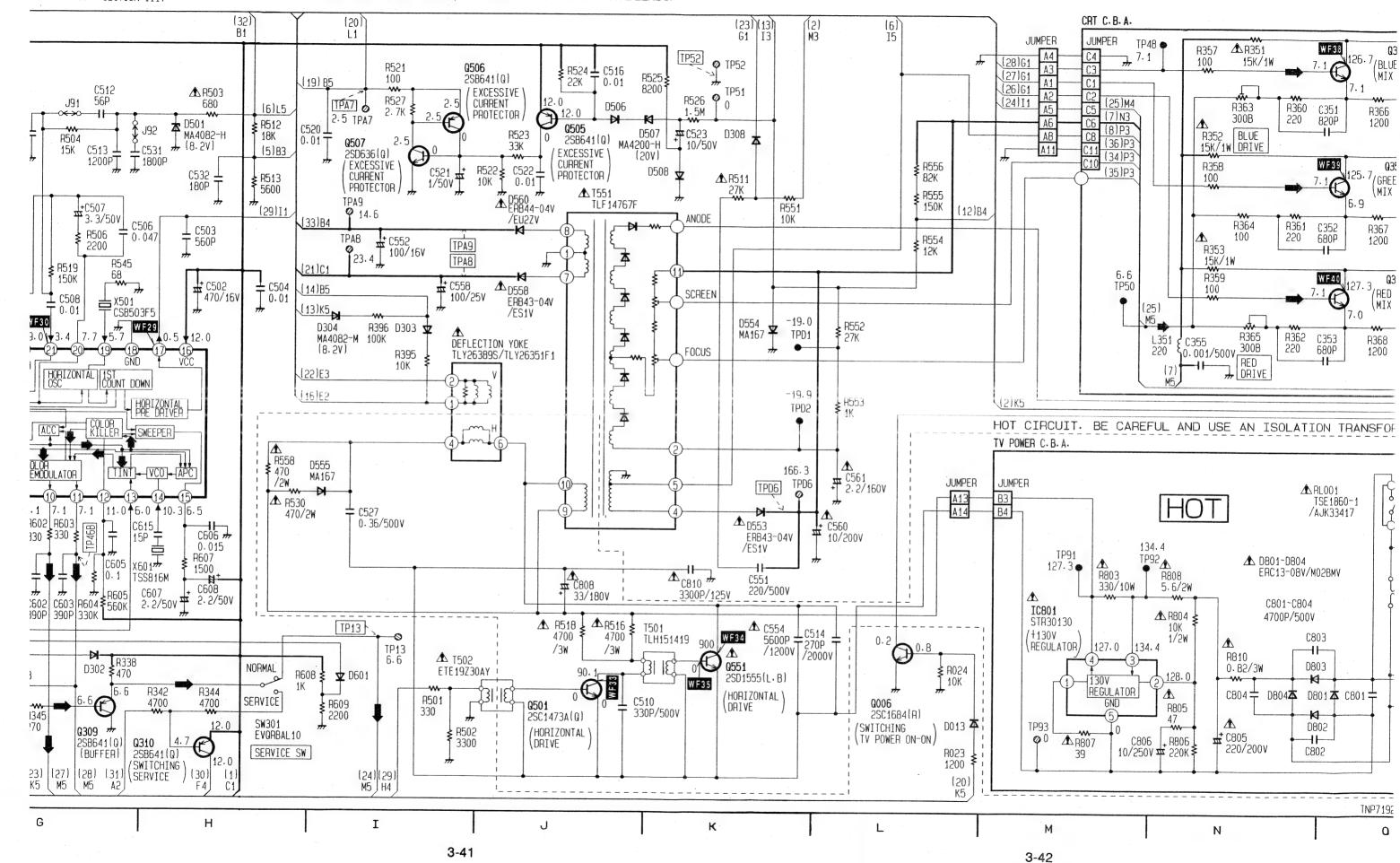
0309 // 2SB641(0) (BUFFER)

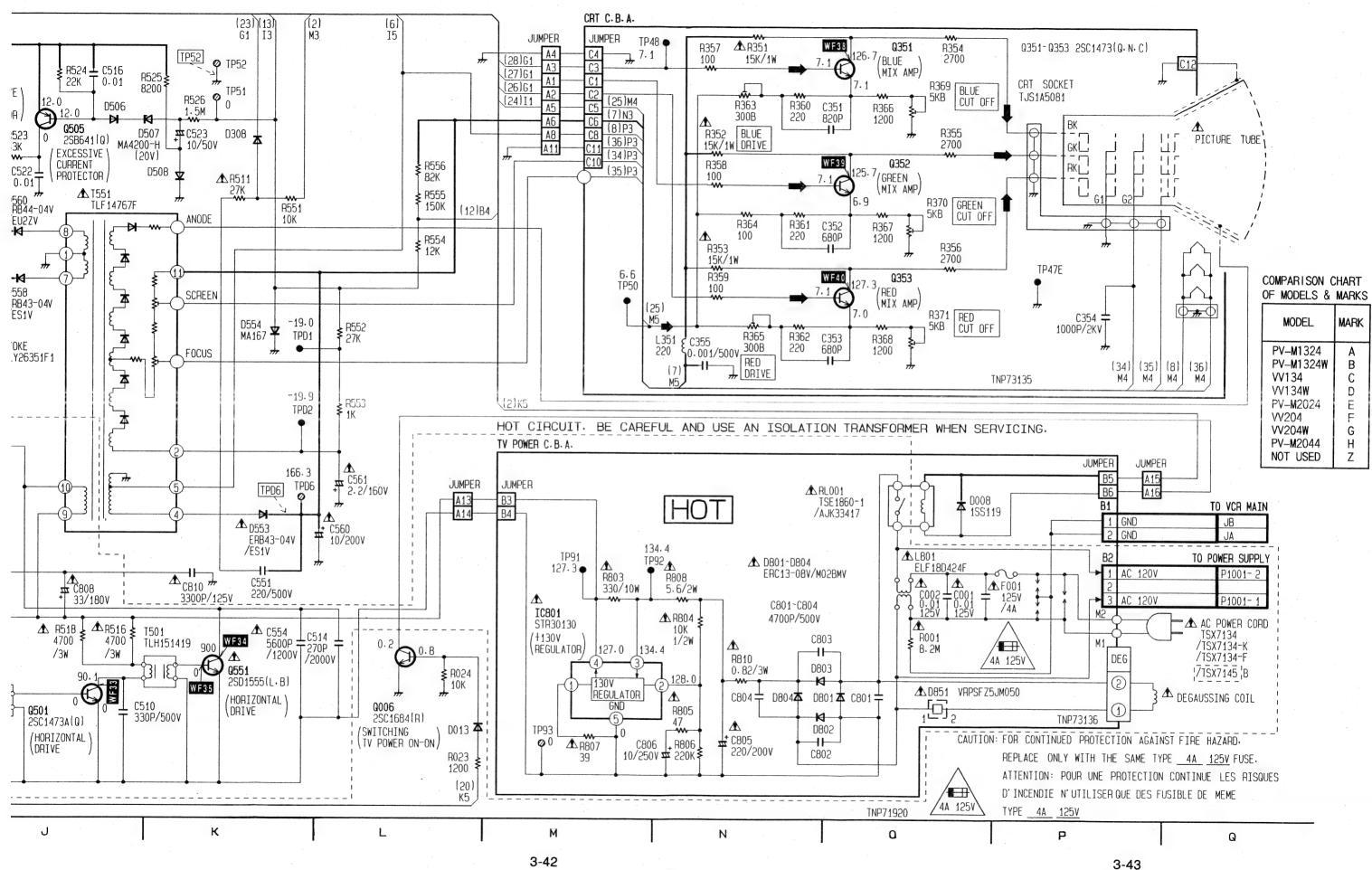
2SB641

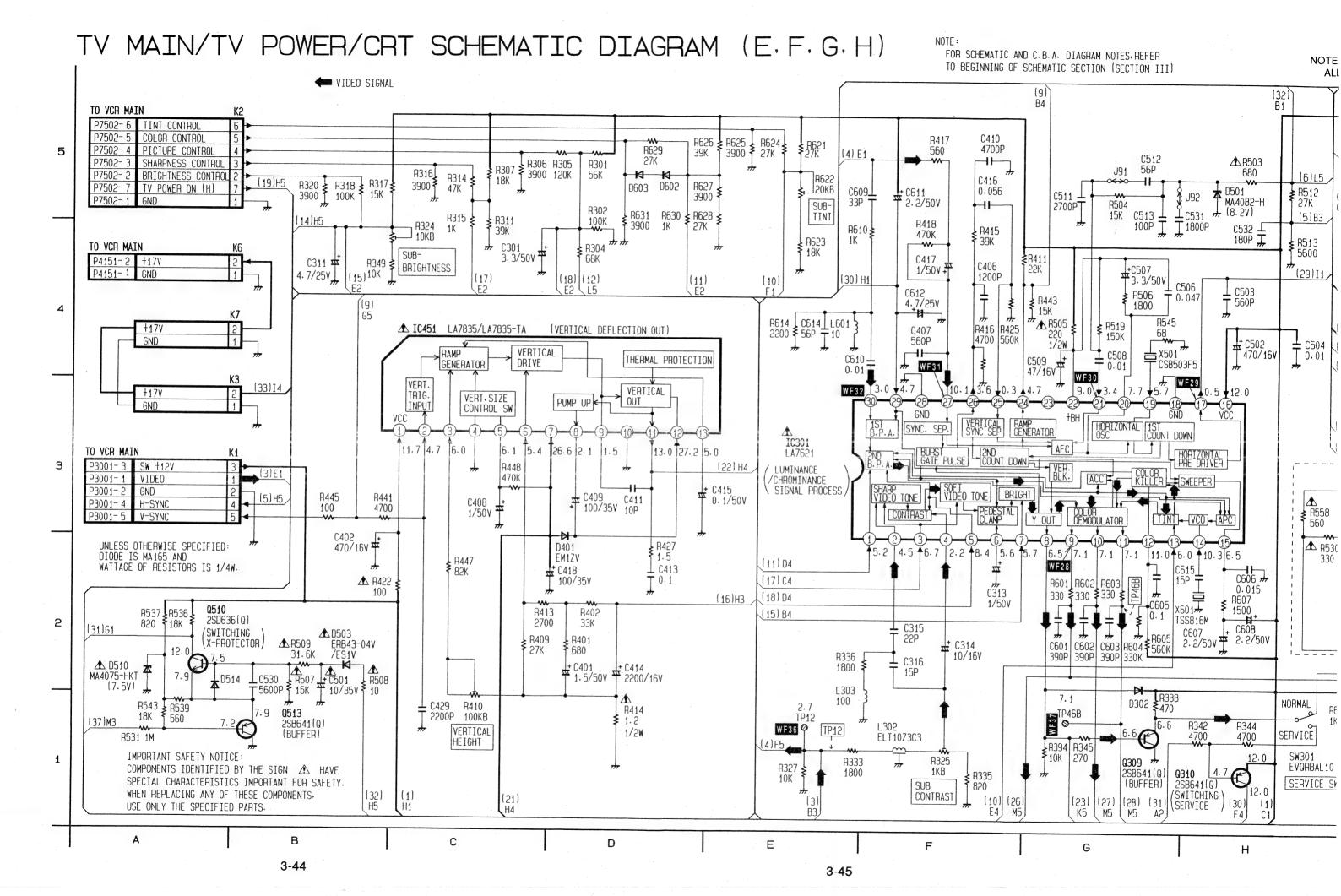
TNP71920

(128) (31) (SWITCHI-SERVICE) (SERVICE)

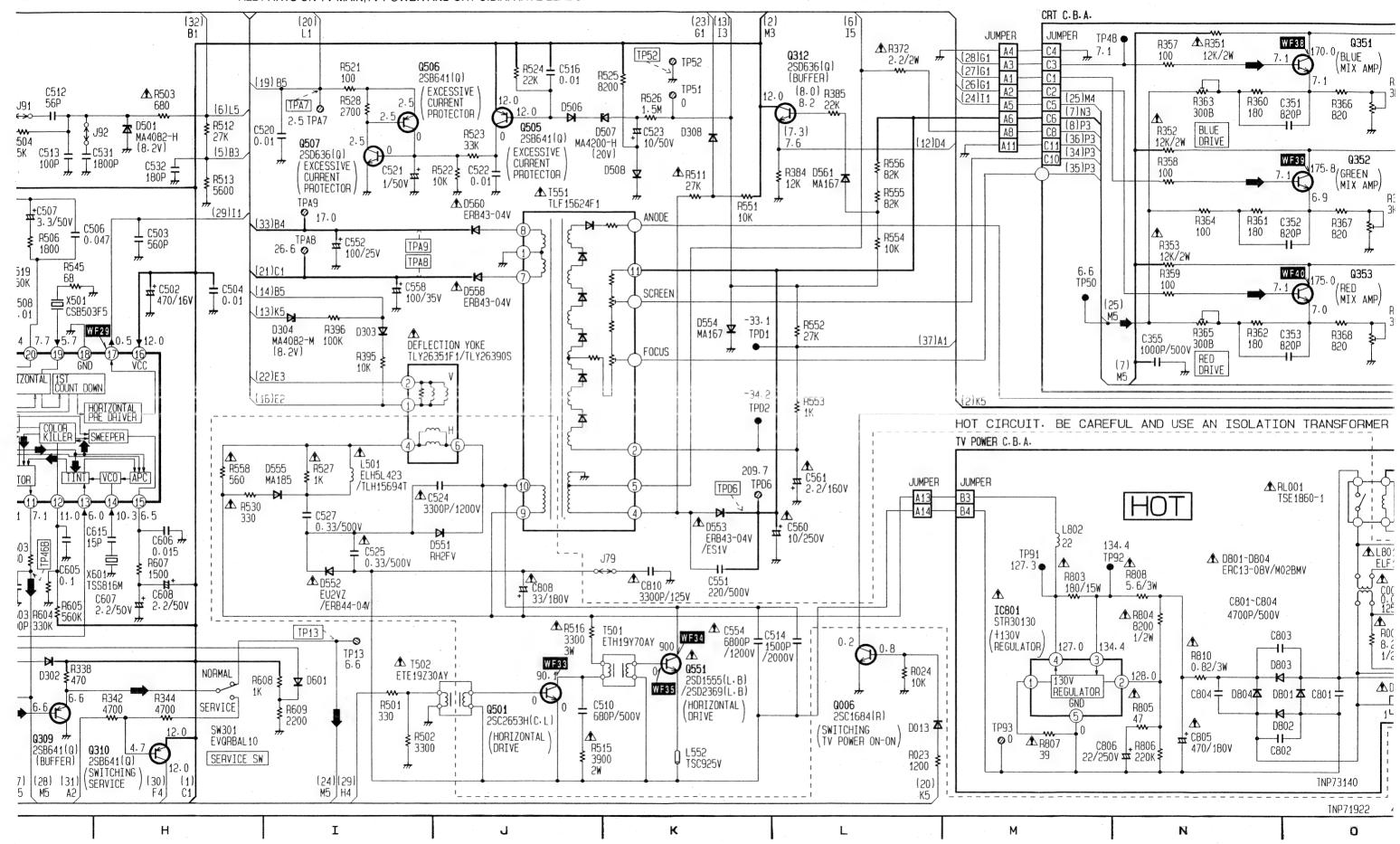
NOTE: ALL PARTS ON TV MAIN, TV POWER AND CRT C.B.A. HAVE LEADS.



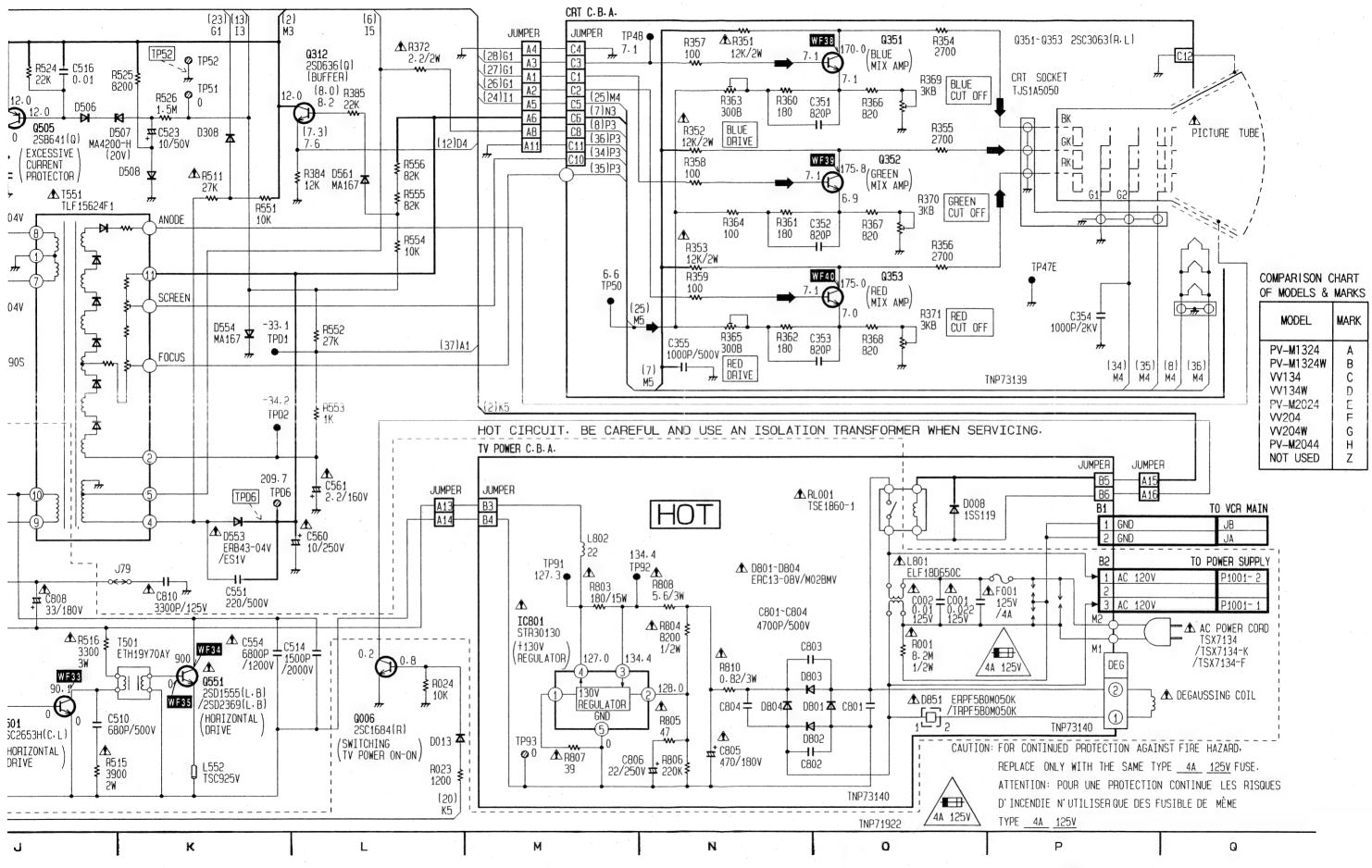




3-46



3-47



INTERCONNECTION SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC AND C.B.A. DIAGRAI
TO BEGINNING OF SCHEMATIC SECT

TRANSISTOR 0006	TV M	AIN	
0309	TRANS	ISTOR	
Q310 H-1 Q312 L-5 Q501 J-1 Q505 J-5 Q506 I-5 Q507 I-5 Q510 A-2 Q513 B-1 Q551 K-2 IC IC301 E-3 IC451 C-4 CONNECTOR K1 A-3 K2 A-5 K3 A-3 K6 A-4 K7 A-4 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2	0006	L-1	
Q312	0309	G-1	
Q501 J-1 Q505 J-5 Q506 I-5 Q507 I-5 Q510 A-2 Q513 B-1 Q551 K-2 IC IC301 E-3 IC451 C-4 CONNECTOR K1 A-3 K2 A-5 K3 A-3 K6 A-4 K7 A-4 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2	Q310	H-1	
Q505	Q312	L-5	
Q506	Q501	J-1	
Q507	Q505	J-5	
Q510	Q506	1-5	
Q513 B-1 Q551 K-2 IC IC301 E-3 IC451 C-4 CONNECTOR K1 A-3 K2 A-5 K3 A-3 K6 A-4 K7 A-4 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2	Q507	1-5	
C C C C C C C C C C	0510	A-2	
C	Q513	B-1	
IC301	Q551	K-2	
C451 C-4 CONNECTOR K1 A-3 K2 A-5 K3 A-3 K6 A-4 K7 A-4 A1 M-5 A2 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2	1	С	
CONNECTOR K1	1C301	E-3	
K1 A-3 K2 A-5 K3 A-3 K6 A-4 K7 A-4 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2			
K2 K3 A-5 K3 A-4 K7 A-4 K7 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A8 M-5 A11 M-5 A13 L-2	CONNECTOR		
K3 K6 A-4 K7 A-4 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A1 M-5 A1 L-3 A14 L-2			
K6 K7 A-4 K7 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2			
K7 A-4 A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2		1	
A1 M-5 A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2		i 1	
A2 M-5 A3 M-5 A4 M-5 A5 M-5 A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2	K7 .		
A3			
A4 M-5 A5 M-5 A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2			
A5 M-5 A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2	A 3	1	
A6 M-5 A8 M-5 A11 M-5 A13 L-3 A14 L-2		1 1	
A8 M-5 A11 M-5 A13 L-3 A14 L-2			
A11 M-5 A13 L-3 A14 L-2			
A13 L-3 L-2			
A14 L-2			
A15 P-3			
A16 P-3	A16	P-3	

TV POWER

IC801 M-2

CONNECTOR

TEST POINT

B2

В3

B4

B 5

B6

TP91

TP92

TP93

P-3

P-2

M-3

M-2

P-3

P-3

M-2

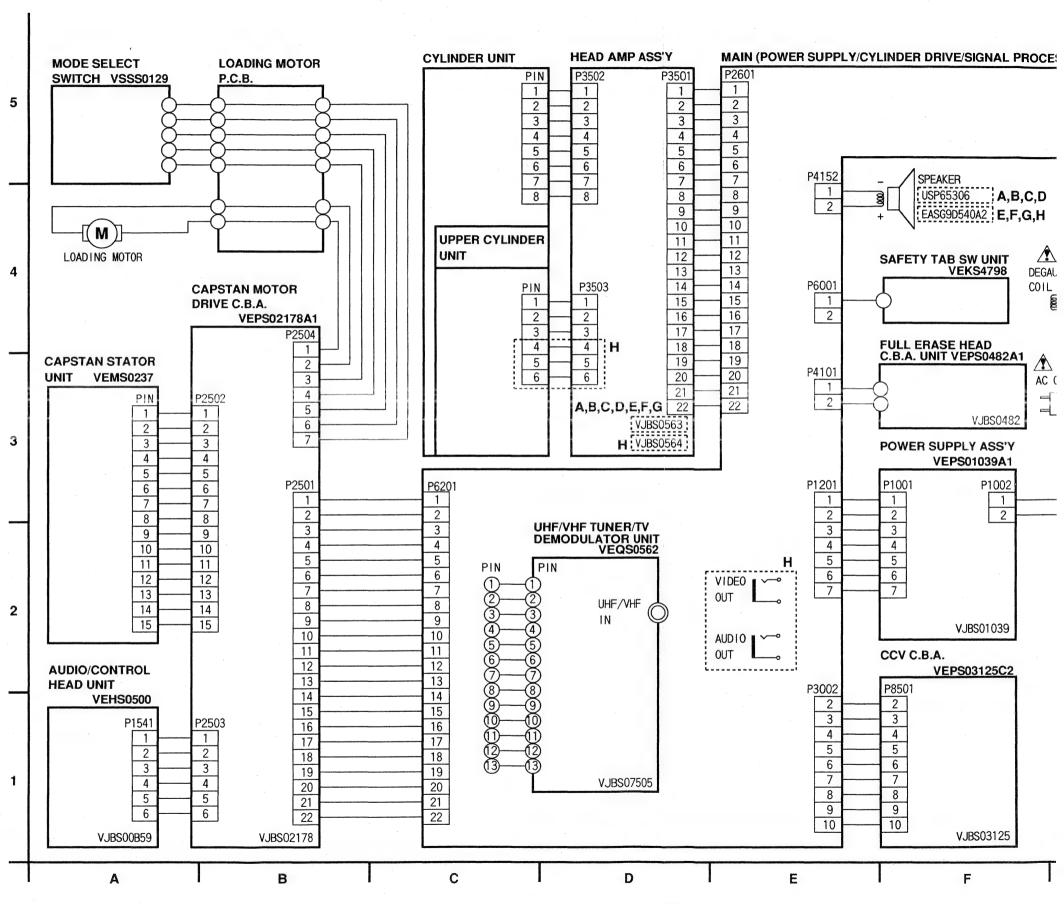
M-2

M-1

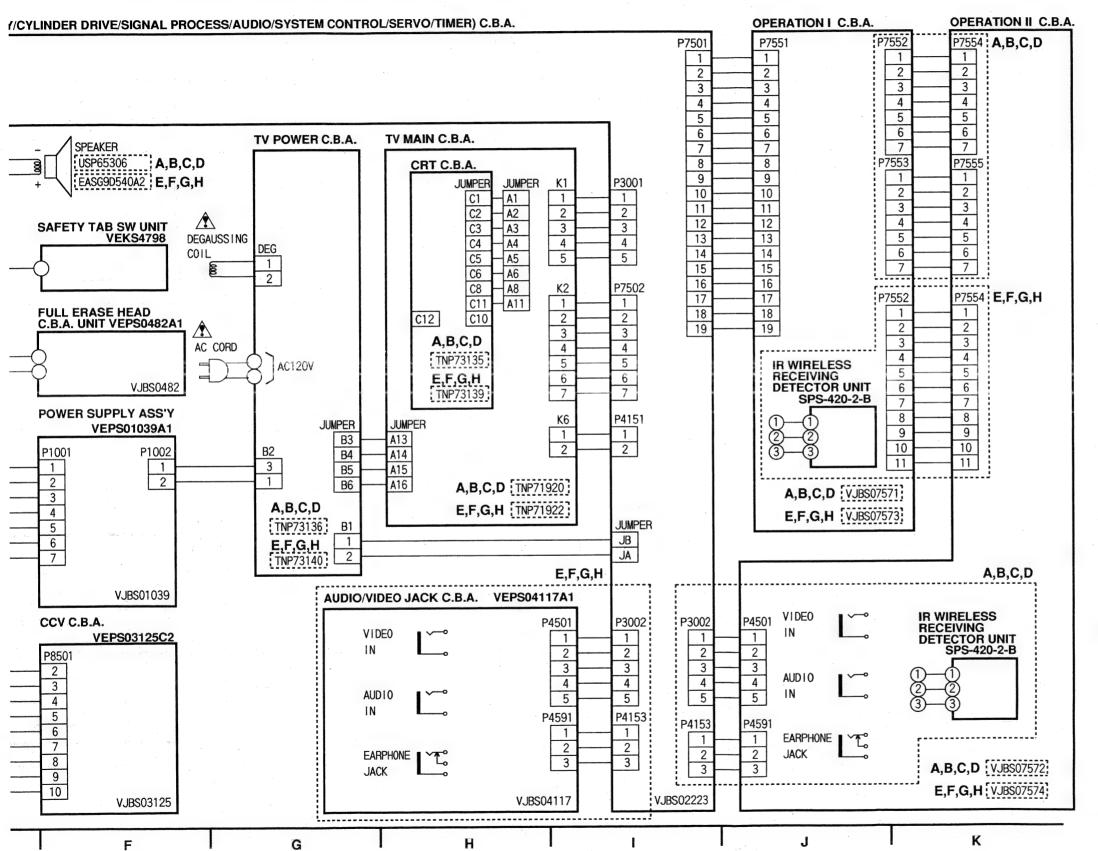
TV MAIN				
TEST	POINT			
TP12	E-1			
※ TP12	- E−1			
TP13	1-2			
※ TP13	1-2			
TP46B	G-1			
ЖTР46В	G-2			
TP51	K-5			
※ TP51	1-3			
TP52	K-5			
※ TP52	K-5			
TPA7	1-5			
※TPA7	1-5			
TPA8	1-4			
 ※TPA8	1-4			
TPA9	1-4			
※TPA9	1-4			
TPD1	K-3			
TPD2	K-3			
TPD6	K-3			
ЖTPD6	K-3			
	TMENT			
R324	C-4			
R325	F-1			
R410	C-1			
R622 E-5				
R622 E-5				

CRT		
TRANSISTOR		
Q351	0-5	
Q352	0-4	
Q353	0-4	
CONNE	CTOR	
C1	M-5	
C2	M-5	
C3	M-5	
C4	M-5	
C5	M-5	
C6	M-5	
C8	M-5	
C10	M-5	
C11	M-5	
C12	Q-5	
TEST	POINT	
TP47E	P-4	
TP48	N-5	
TP50	M-4	
	TMENT	
R363	N-5	
R365	N-4	
R369	0-5	
R370	0-4	
R371	0-4	

E	\dashv			
E				
E				
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	E			
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	\dashv			
	\dashv			



IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN AVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE
ONLY THE SPECIFIED PARTS.



COMPARISON CHART OF MODELS & MARKS

	MODEL	MARK		
	PV-M1324	Α		
	PV-M1324W	В		
	VV134	С		
	VV134W	D		
	PV-M2024	E		
1	VV204	F		
	VV204W	G		
	PV-M2044	Н		
	NOT USED	Z		

C.B.A./UNIT NUMBER CHART

MAIN C.B.A.		
C.B.A. NUMBER	MODEL NUMBER MARK	
VEPS02223A1	A, B, C, D	
VEPS02223B1	E,F,G	
VEPS02223C1	Н	

OPERATION I C.B.A.	
C.B.A. NUMBER	MODEL NUMBER MARK
VEPS07571A1	A, B, C, D
VEPS07573A1	E, F, G, H

OPERATION II C.B.A.		
C.B.A. NUMBER	MODEL NUMBER MARK	
VEPS07572A1 VEPS07574A1	A, B, C, D E, F, G, H	

HEAD AMP ASS'Y		
ASS'Y NUMBER	MODEL NUMBER MARK	
VEPS0563CA1 VEPS0564CA1	A, B, C, D, E, F, G H	

	TV MAIN C.B.A.			
,	C.B.A. NUMBER	MODEL NUMBER MARK		
	TNP71920CC TNP71922CC	A, B, C, D E, F, G, H		

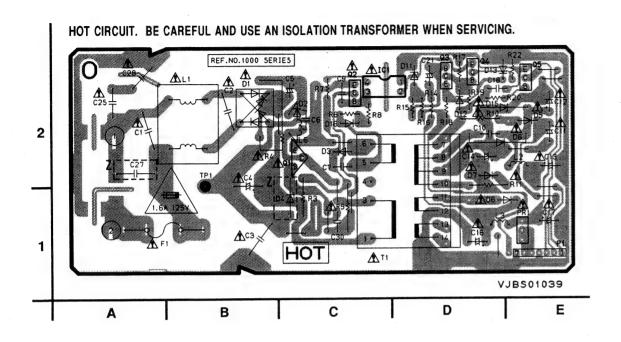
TV POWER C.B.A.		
C.B.A. NUMBER	MODEL NUMBER MARK	
TNP73136BB TNP73140BB	A, B, C, D E, F, G, H	

CRT C.B.A.	
C.B.A. NUMBER	MODEL NUMBER MARK
TNP73135AA TNP73139AA	A, B, C, D E, F, G, H

	CYLINDER UNIT		
UNIT NUMBER		MODEL NUMBER MARK	
	VEGS0370 VEGS0372	A, B, C, D, E, F, G H	

UPPER CYLINDER UNIT		
UNIT NUMBER	MODEL NUMBER MARK	
VEHS0536 VEHS0537	A, B, C, D, E, F, G H	

IV. CIRCUIT BOARD DIAGRAMS POWER SUPPLY ASS'Y VEPS01039A1



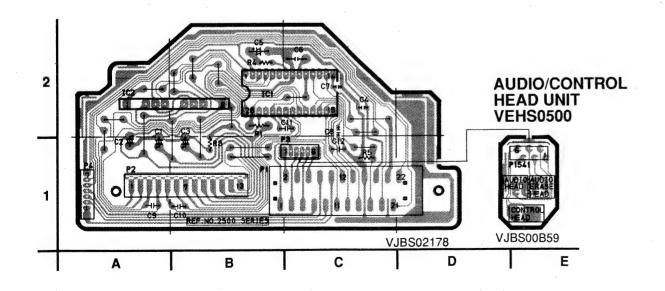
NOTE:

FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION (SECTION III)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ANVESTIGATION HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE
ONLY THE SPECIFIED PARTS.

POWER	SUPPLY
TRANS	ISTOR
Q1001	C-2
01002	C-2
01003	D-2
Q1004	D-2
01005	E-2
1	С
IC1001	C-2
CONNE	CTOR
P1001	E-1
TEST	POINT
TP1001	B-2

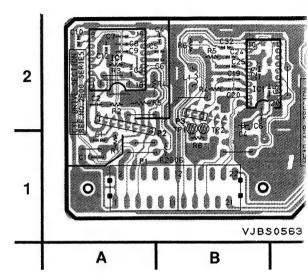
CAPSTAN MOTOR DRIVE C.B.A. VEPS02178A1



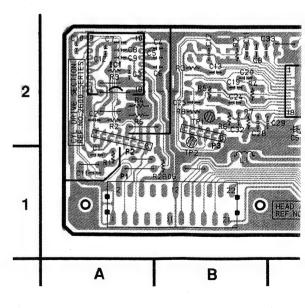
LEADLESS COMPONENT PARTS LOCATION GUIDE

CAPSIAN	MUTUK	DRIVE C. B.	Α.
R2503	B-1	C2508	0-2
R2504	B-2	C2509	A -
R2505	C-1	C2510	B-
C2504	C-2	C2511	C-:
C2507	C-2	C2512	C-

HEAD AMP ASS'Y VEPS

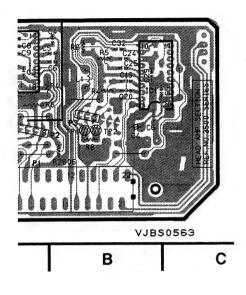


HEAD AMP ASS'Y VEPS



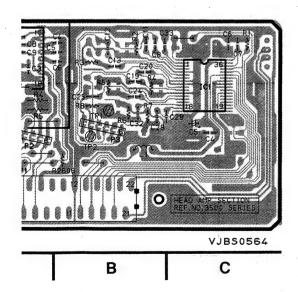
P ASS'Y VEPS0563CA1 (A,B,C,D,E,F,G)

CCV C.B.A. VEPS03125C2

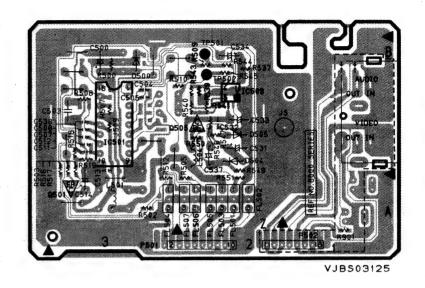


LEADLE	SS COM	PONENT P	ARTS	LOCATION	GUIDE
HEAD A	MP ASS	' Υ			
R2601	A-1	C2603	A-2	C3505	C-2
R2602	A-2	C2604	B-2	C3506	B-2
R2603	A-2	C2605	B-2	C3519	B-2
R2606	B-1	C2606	B-2	C3520	B-2
R3504	B-2	C2607	A-2	C3524	B-2
R3405	B-2	C2608	A-2	C3525	B-2
R3506	B-2	C2609	A-2	C3529	B-2
R3508	B-1	C2610	A-2	C3532	B-2
C2601	A-1	C2611	A-1		
C2602	A-2	C2612	A-2		

PASS'Y VEPS0564CA1 (H)



LEADLE	SS COM	PONENT P	ARTS I	LOCATION	GUIDE
HEAD A	MP ASS	' Y			
R2601	A-1	C2602	A-2	C3507	C-2
R2602	A-2	C2603	A-2	C3508	B-2
R2603	A-2	C2604	B-2	C3511	B-2
R2606	B-1	C2605	B-2	C3512	B-2
R3501	C-2	C2606	B-2	C3513	B-2
R3502	B-2	C2607	A-2	C3519	B-2
R3503	B-2	C2608	A-2	C3520	B-2
R3504	B-2	C2609	A-2	C3524	B-2
R3405	B-2	C2610	A-2	C3525	B-2
R3506	B-2	C2611	A-1	C3528	B-2
R3507	B-2	C2612	A-2	C3529	C-2
R3508	B-2	C3504	C-2	C3532	B-2
C2601	A-1	C3506	C-2	C3533	C-2



R8546 B-2

R8547 B-2

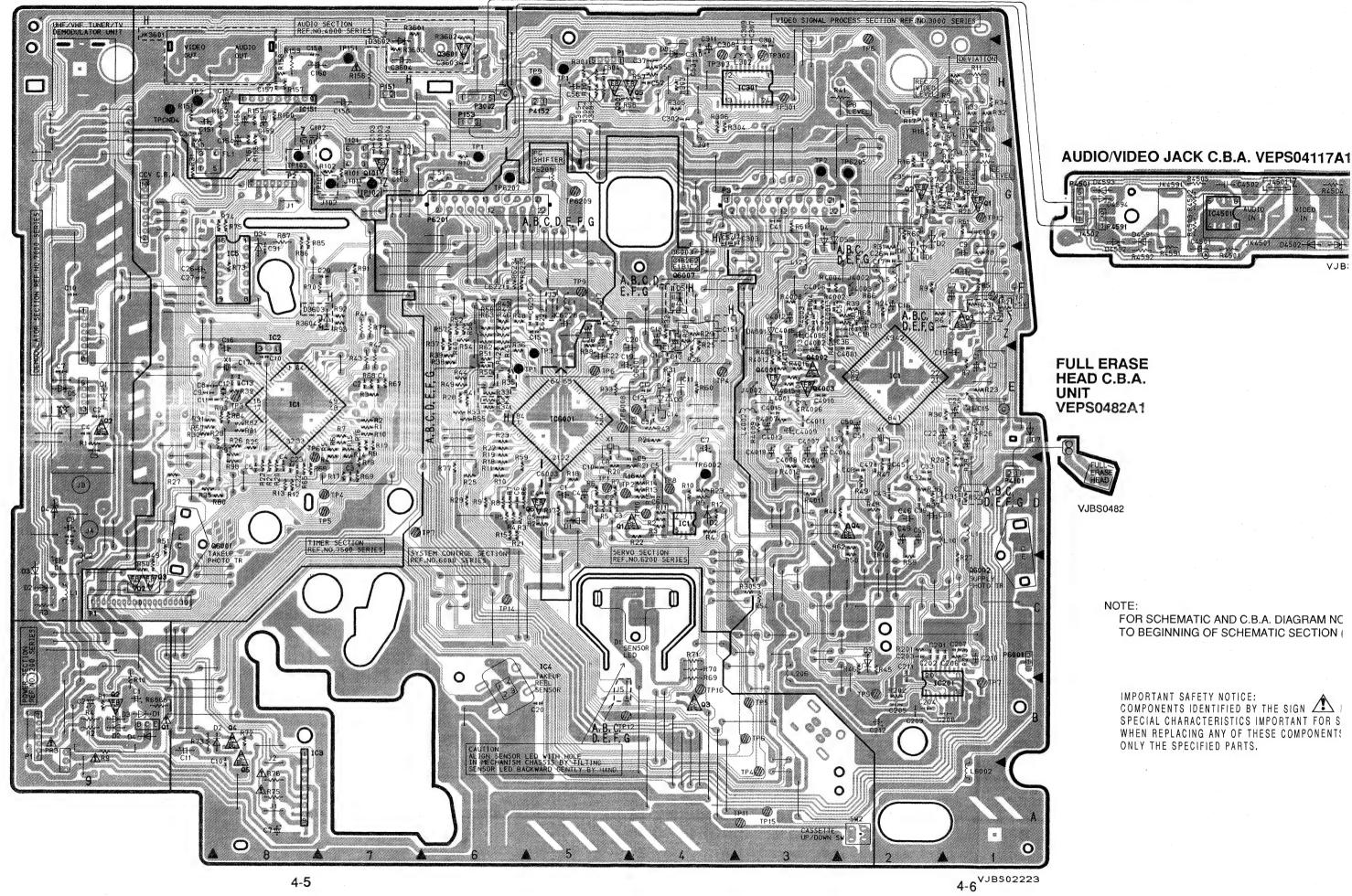
LEADLESS COMPONENT PARTS LOCATION GUIDE

MODEL PV-M1324 PV-M1324W VV134 VV134W PV-M2024 VV204 VV204W PV-M2044

COMPARISON CHART OF MODELS & MARKS

C8538 B-3

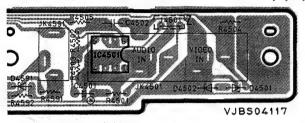
MAIN (POWER/SIGNAL PROCESS/AUDIO/SYSTEM CONTROL/SERVO/TIMER) C.B.A. VEPS02223A1 (A,B,C,D) / VEPS02223B1 (E



4-5

,D) / VEPS02223B1 (E,F,G) / VEPS02223C1 (H)

DEO JACK C.B.A. VEPS04117A1 (E,F,G,H)



SE A.

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DR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER DIBEGINNING OF SCHEMATIC SECTION (SECTION III)

PORTANT SAFETY NOTICE:

)MPONENTS IDENTIFIED BY THE SIGN AVE

PECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.

HEN REPLACING ANY OF THESE COMPONENTS, USE

ILY THE SPECIFIED PARTS.

MAIN		
TRANS	ISTOR	
Q1201	B-9	
01202	B-9	
03001	G-1	
03002	G-2	
03003	F-1	
03004	D-2	
03005	H-4	
03301	H-5	
03601	H-6	
04001	E-3	
04002	E-3	
04003	E-3	
Q4101	G-7	
Q6001	D-8	
Q6002	C-1	
06003	B-4	
06004	B-8	
Q6005	A-8	
Q6006	D-5	
06007	F-4	
Q6201	D-5	
07002	E-9	
07502	C-9	
07503	C-9	

MA	I N
	C
IC3001	E-2
IC3201	B-2
IC3301	H-3
IC4151	H-8
106001	E-5
106003	B-8
106004	C-5
IC6201	D-4
107501	E-8
107502	F-8
107503	F-8

MAIN		
CONNE	CTOR	
P1201	B-9	
P3001	H-5	
P3002	H-6	
P3003	G-4	
P4101	D-1	
P4151	H-7	
P4152	H-5	
P4153	H-6	
P6001	C-1	
P6201	G-6	
P7501	C-9	
P7502	G-8	

COMPARISON CHART				
0F	MODELS	&	MARKS	

MODEL	MARK
PV-M1324 PV-M1324W VV134 VV134W PV-M2024 VV204 VV204W PV-M2044 NOT USED	A B C D E F G H Z

MAIN				
ADJUSTMENT				
R3003	H-1			
R3010	H-1			
R3011	H-1			
R3014	G-1			
R3015	G-1			
R3041	H-2			
R6201	G-5			

	TP6008	E-5
	TP6009	F-5
	TP6011	A-3
	TP6012	B-5
	TP6014	C-6
	TP6015	A-3
	TP6016	B-4
	TP6201	D-5
-	TP6202	D-5
	TP6203	E-4
	TP6204	E-4
	TP6205	G-2
-	TP6206	E-5
	TP6207	G-6
	TP6208	D-4
	TP6209	G-5
	TP6210	D-4
	TP7503	E-8
-	TP7504	D-7
-	TP7505	D-7
	TP7506	E-8
	TPGND4	H-9
-	TP +5V	F-1

MAIN

TEST POINT

H-5

G-3

B-2

H-2

B-1

H-5

D-2

G-1

H-3

H-3

H-4

G-6

H-9

G-7

G-7

G-8

H-7

E-5

D-4

E-5

A-3

B-3

B-3

D - 6

TP3001

TP3002

TP3005

TP3006

TP3007

TP3009

TP3010

TP3012

TP3301

TP3302

TP3303

TP4001

TP4002

TP4101

TP4102

TP4103

TP4151

TP6001

TP6002

TP6003

TP6004

TP6005

TP6006

TP6007

	PONENT PAR	RTS LOCATION	GUIDE								
MAIN C. B. A.											
Q1202 B-9		E-3 R4019	E-3	R6054	F-6	R7510	E-7	C3023	E-1	C4104	H-
Q3001 G-1		F-1 R4030	H-9	R6055	E-6	R7512	D-8	C3026	F-2	C4157	H-
Q3002 G-2	R3044 [O-3 R4031	G-9	R6056	F-6	R7513	D-8	C3027	G-2	C4158	H-
Q3003 F-1	R3045 C	C-2 R4101	G-7	R6057	F-6	R7514	E-7	C3028	G-1	C6003	D-
Q3004 D-2	R3046 C	C-2 R4102	G-7	R6058	F-6	R7515	E-7	C3029	G-1	C6004	D-
Q3005 H-4	R3047 [D-2 R4103	H-7	R6059	E-6	R7516	E-7	C3031	D-1	C6005	D-
Q3301 H-5		D-2 R4151	H-9	R6062	F-6	R7517	D-7	C3032	D-2	C6006	D-
Q3601 H-6		D-2 R4153	H-8	R6063	F-6	R7518	D-7	C3033	D-2	C6010	B-
Q4001 E-3		C-2 R4155	G-8	R6072	B-8	R7519	E-7	C3034	F-2	C6015	F-
Q4002 E-3		3-3 R4157	H-8	R6077	D-6	R7520	D-8	C3035	G-2	C6017	F-
Q4003 E-3		D-1 R4158	H-8	R6202	D-4	R7521	D-8	C3036	F-2	C6020	В-
Q4101 G-7		C-3 R4160	H-8	R6203	D-4	R7522	D-8	C3037	H-4	C6202	D-
Q6003 B-4		C-3 R4161	G-8	R6204	D-4	R7525	E-8	C3039	D-2	C6203	D-
Q6004 B-8		H-4 R6002	D-5	R6205	D-5	R7526	E-8	C3040	E-1	C6205	D-
		H-4 R6003	D-6	R6206	D-5	R7527	D-9	C3041	G-3	C6206	D-
					D-5	R7527	E-8	C3041		C6208	D-
Q6006 D-5		E-1 R6004	D-6	R6207					D-2		
Q6007 F-4		C-2 R6005	D-6	R6208	D-5	R7530	E-9	C3045	D-2	C6209	D-
Q6201 D-5		G-2 R6006	D-6	R6209	D-4	R7531	E-9	C3047	D-2	C6210	D-
Q7002 E-9		G-1 R6007	D-6	R6210	D-4	R7535	D-9	C3048	D-2	C6212	E-
Q7502 C-9		D-2 R6008	D-6	R6211	D-4	R7539	E-8	C3050	E-2	C6213	E-
Q7503 C-9		F-2 R6009	D-6	R6212	D-4	R7549	D-9	C3053	H-4	C6217	E-
R1201 B-9		F-2 R6010	D-6	R6213	D-4	R7550	C-9	C3054	G-4	C6221	F-
R3004 H-1		C-2 R6011	D-6	R6214	D-4	R7551	D-9	C3057	F-2	C6223	F-
R3005 F-1	R3202 E	B-2 R6015	D-6	R6215	D-4	R7557	E-9	C3201	C-2	C6227	F-
R3006 F-2	R3203 (C-1 R6018	D-6	R6216	D-4	R7565	D-8	C3202	C-2	C6229	F-
R3007 E-1	R3301 H	H-5 R6019	E-6	R6217	D-5	R7566	D-7	C3203	C-2	C6230	F-
R3008 F-1	R3302 H	H-5 R6021	D-6	R6218	D-5	R7567	E-7	C3204	B-2	C6231	E-
R3009 F-2	R3303 1	H-4 R6022	E-6	R6220	D - 5	R7568	E-7	C3205	B-2	C7002	E-
R3012 G-1	R3304 H	H-4 R6023	E-6	R6221	D-4	R7569	D-7	C3206	C-1	C7004	E-
R3013 H-2		H-4 R6025	D-6	R6222	D-4	R7570	F-8	C3207	C-1	C7005	E-
R3016 G-2		H-4 R6028	E-6	R6223	D-4	R7573	F-8	C3208	B-1	C7007	E-
R3017 H-2		H-5 R6029	D-6	R6224	E-4	R7574	G-8	C3209	B-2	C7009	D-
R3018 H-2		H-5 R6032	E-6	R6225	F-4	R7575	G-8	C3211	C-2	C7010	F-
R3019 G-2		H-7 R6033	E-6	R6226	E-4	R7580	D-8	C3301	H-3	C7501	E-
R3020 G-1		H-6 R6034		R6228	F-4	R7581	E-8	C3302	H-4	C7502	Ē-
R3021 G-2		H-7 R6035	E-6	R6229	F-4	R7582	E-8	C3303	G-3	C7503	D-
		F-8 R6036	F-6	R6231	E-4	R7583	E-8	C3304	H-5	C7504	E-
R3023 E-1		F-3 R6037	F-6	R6232	F-4	R7584	E-8	C3305	H-5	C7505	D-
R3024 F-2		F-3 R6038	E-6	R6233	E-5	R7585	G-8	C3307	H-3	C7508	E-
R3025 G-1		F-3 R6039	E-6	R6234	F-6	R7586	F-8	C3308	H-4	C7509	E-
R3026 E-1		F-3 R6040	E-6	R6235	F-6	R7591	F-7	C3309	H-3	C7510	E-
R3027 C-1		D-3 R6041	E-6	R6238	E-5	R7592	F-7	C3310	H-4	C7511	E-
R3028 D-2		E-3 R6042	E-6	R6243	E-4	R7593	F-7	C3603	H-6	C7512	E-
R3029 D-1	R4007	E-3 R6043	F-6	R6260	E-4	R7597	E-8	C4001	E-2	C7513	E-
R3030 E-2	R4008	F-3 R6044	E-6	R7001	E-9	R7598	D-8	C4002	E-3	C7517	E-
R3031 F-2	R4009	E-3 R6045	E-6	R7002	E-9	C3002	E-1	C4003	F-3	C7520	F-
R3032 H-1	R4010 (G-6 R6046	F-6	R7501	E-7	C3003	G-2	C4004	F-3	C7522	D-
R3033 H-1		D-3 R6047	F-6	R7502	E-7	C3004	G-2	C4006	F-3	C7523	D-
R3034 H-1		E-3 R6048	F-6	R7503	E-7	C3005	H-1	C4010	E-3	C7527	F-
R3035 H-1		E-3 R6049	E-6	R7504	D-7	C3010	G-1	C4011	E-3	C7531	F-
R3036 D-2		E-3 R6050	E-6	R7505	E-7	C3012	G-2	C4015	E-3		•
R3037 D-2		E-3 R6051	E-6	R7506	E-7	C3017	F-2	C4016	F-3		
R3038 F-2		E-3 R6052	F-6	R7507	E-7	C3017	F-2	C4010	H-9		
NOUNO F-2.	N4010 1	F 0 10007	1-0	N/JU/	E-1	00010	1 - Z	04000	11-3		

R7509 E-7

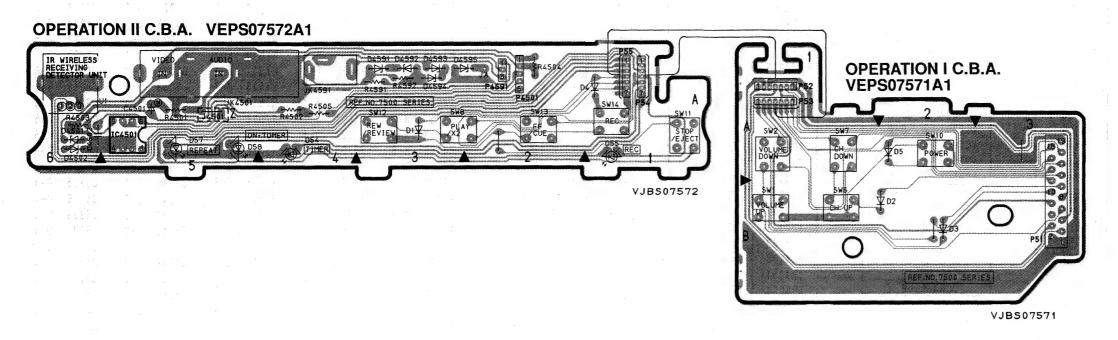
R6053 E-6

R3039 F-2 R4018 D-3

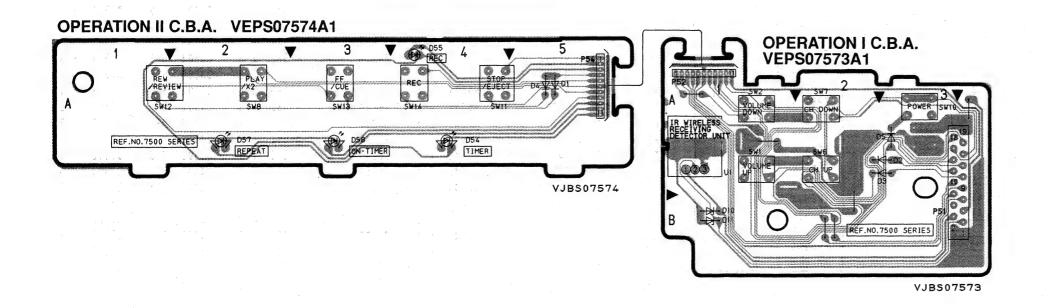
C3021 D-1 C4103 H-7

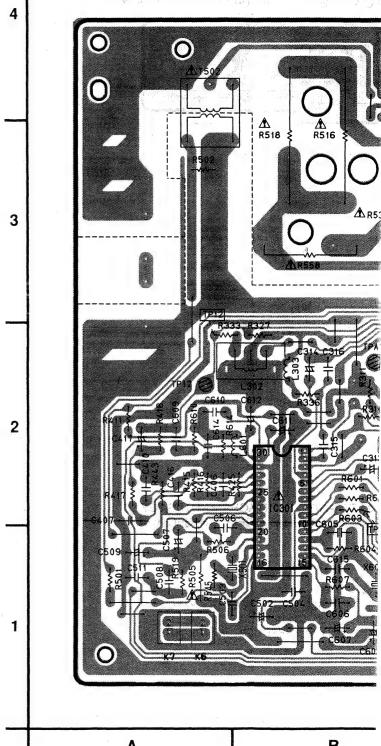
TV MAIN C.B.A. TNP71920CC (

NOTE:
FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES,RE
TO BEGINNING OF SCHEMATIC SECTION (SECTIO

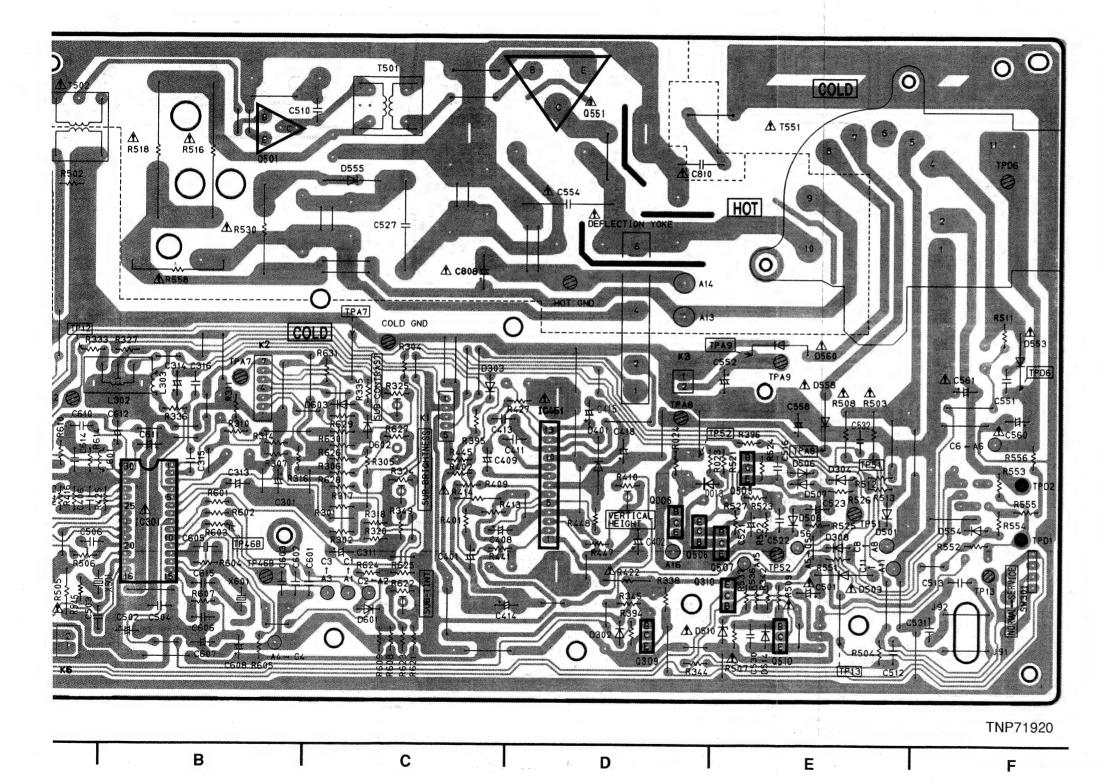


OPERATION I/II C.B.A. (E,F,G,H)





TIC AND C.B.A. DIAGRAM NOTES, REFER OF SCHEMATIC SECTION (SECTION III) IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN AND HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE
ONLY THE SPECIFIED PARTS.



COMPARISON CHART OF MODELS & MARKS

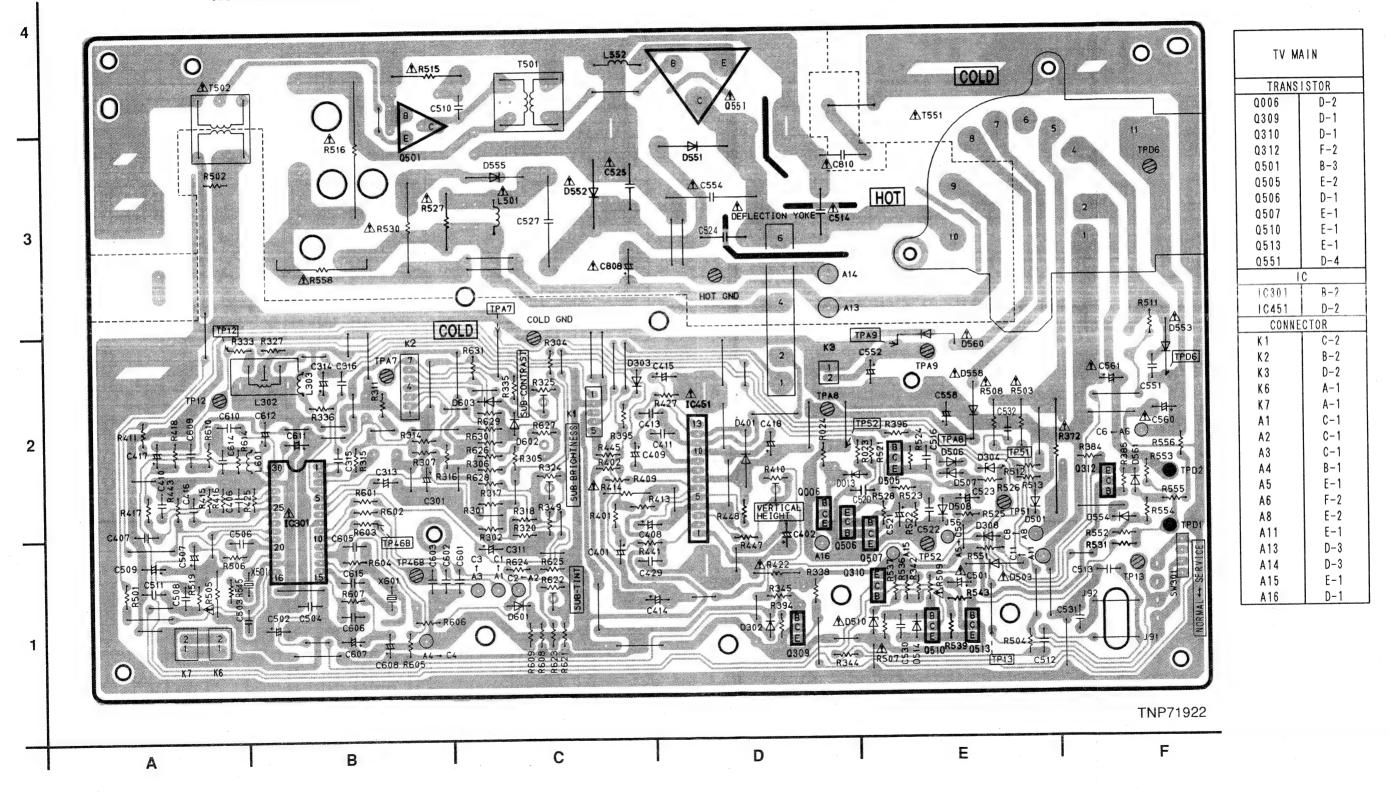
or modele a matrice			
MODEL	MARK		
PV-M1324 PV-M1324W VV134 VV134W PV-M2024 VV204 VV204W PV-M2044	A B C D E F G H		
NOT USED	Z		

TV MAIN			
TRANS	SISTOR		
0006	D-2		
0309	D-1		
0310	D-1		
0501	B-3		
0505	E-2		
Q506	D-1		
0507	E-1		
Q510	E-1		
Q551	D-4		
	C		
IC301	B-2		
IC451	D-2		
CONNE			
K 1	C-2		
K2	B-2		
K3	D-2		
K 6	A-1		
K7	A-1		
A1	C-1		
A2	C-1		
A3	C-1		
A4	B-1		
A5	E-1		
A6	F-2		
A8	E-1		
A11	E-1		
A13	D-3		
A14	D-3		
A15	E-1		
A16	D-1		

TV M	MAIN
TEST	POINT
TP12	A-2
% TP12	A-3
TP13	F-1
% TP13	E-1
TP46B	B-1
%TP46B	B-1
TP51	E-2
※ TP51	E-2
TP52	E-1
% TP52	E-2
TPA7	B-2
※ TPA7	C-3
TPA8	D-2
፠TPA8	E-2
TPA9	E-2
 ₩TPA9	E-2
TPD1	F-2
TPD2	F-2
TPD6	F-3
% TPD6	F-2
ADJUS	TMENT
R324	C-2
R325	C-2
R410	D-2
R622	C-1
★ : CONPOI	NENT SIDE

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE
ONLY THE SPECIFIED PARTS.

NOTE: FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION (SECTION III)



TV M	AIN
TEST	POIN
TP12	A
※ TP12	Α
TP13	F
※ TP13	E
TP46B	В
% TP46Β	В
TP51	E
% TP51	E
TP52	E
※ TP52	E
TPA7	В
% TPA7	C
TPA8	
※ TPA8	E
TPA9	E
% TPA9	ŀ
TPD1	F
TPD2	F
TPD6	l F
₩TPD6	TME
ADJUS	
R324	
R325) [
R410	
R622	
XX : CONFC	MEN

COMPARISON C OF MODELS &

MODEL

PV-M1324 PV-M1324W VV134 VV134W PV-M2024 VV204 VV204W PV-M2044 NOT USED

TV M	AIN	TV N	MAIN
TRANS	ISTOR	TEST	POINT
0006	D-2	TP12	A-2
Q309	D-1	※ TP12	A-3
Q310	D-1	TP13	F-1
0312	F-2	※ TP13	E-1
0501	B-3	TP46B	B-1
Q505	E-2	XTP46B	B-1
Q506	D-1	TP51	E-2
0507	E-1	※ TP51	E-2
0510	E-1	TP52	E-1
Q513	E-1	※ TP52	E-2
0551	D-4	TPA7	B-2
	С	. ₩TPA7	C-3
IC301	B-2	TPA8	D-2
IC451	D-2	_ XTPA8	E-2
CONNE	CTOR	TPA9	E-2
K 1	C-2	₩TPA9	E-2
K 2	B-2	TPD1	F-2
K3	D-2	TPD2	F-2
K 6	A-1	TPD6	F-3
K 7	A-1	≫TPD6	F-2
A1 .	C-1	ADJUS	TMENT
A2	C-1	R324	C-2
A3	C-1	R325	C-2
A 4	B-1	R410	D-2
A 5	E-1	R622	C-1
A6	F-2	₩ : CONPC	NENT S
8 A	E-2		
A11	E-1		
A13	D-3		
	1		

A14

A15

D-3

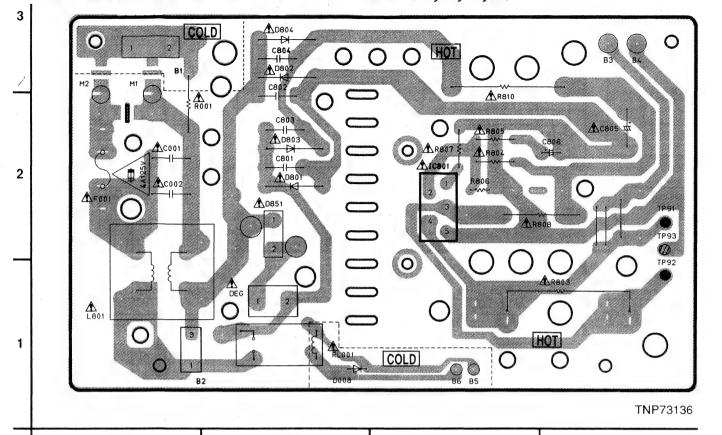
E-1

TV MAIN				
TEST	POINT			
TP12	A-2			
※ TP12	A-3			
TP13	F-1			
※ TP13	E-1			
TP46B	B-1			
≫TP46B	B-1			
TP51	E-2			
※ TP51	E-2			
TP52	E-1			
ЖTР52	E-2			
TPA7	B-2			
%TPA7	C-3			
TPA8	D-2			
፠TPA8	E-2			
TPA9	E-2			
ЖTРА9	E-2			
TPD1	F-2			
TPD2	F-2			
TPD6	F-3			
≫TPD6	F-2			
ADJUS	TMENT			
R324	C-2			
R325	C-2			
R410	D-2			
R622	C-1			
R622				

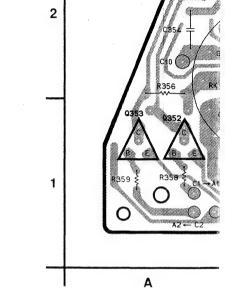
COMPARISON CHART OF MODELS & MARKS

or modeled a	100 11 11 10
MODEL	MARK
PV-M1324	Α
PV-M1324W	В
VV134	C
VV134W	D
PV-M2024	E
VV204	F
VV204W	G
PV-M2044	; H
NOT USED	Ζ

TV POWER C.B.A. TNP73136BB (A,B,C,D)



TV P	TV POWER				
1	С				
10801	C-2				
CONNE	CTOR				
B 1	A-3				
B 2	A-1				
B3	D-3				
B4	D-3				
B5	C-1				
B6	C-1				
TEST	POINT				
TP91	D-2				
TP92	D-1				
TP93	D-2				

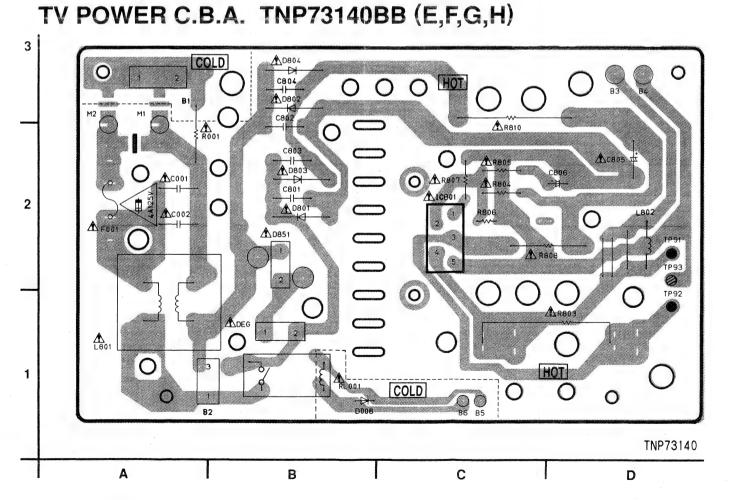


CRT C.B.A. T

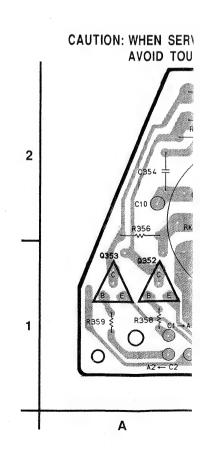
CAUTION: WHEN !

AVOID

CRT C.B.A. T

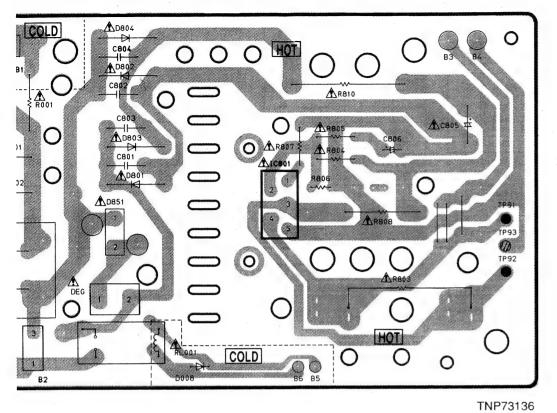


TV POWER				
	С			
IC801	C-2			
CONNE	CTOR			
B1	A-3			
B 2	A-1			
B3	D-3			
B 4	D-3			
B 5	C-1			
B6	C-1			
TEST POINT				
TP91	D-2			
TP92	D-1			
TP93	D-2			



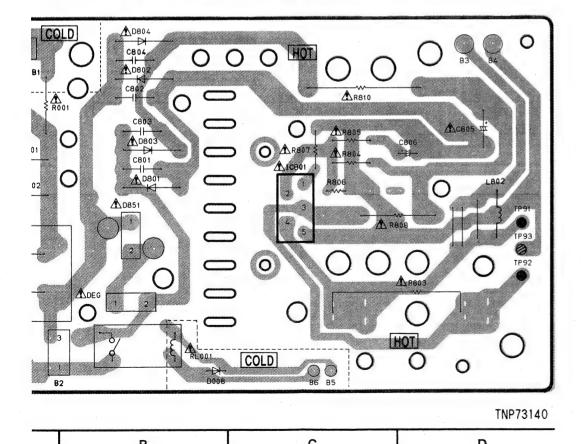
4-15

C.B.A. TNP73136BB (A,B,C,D)



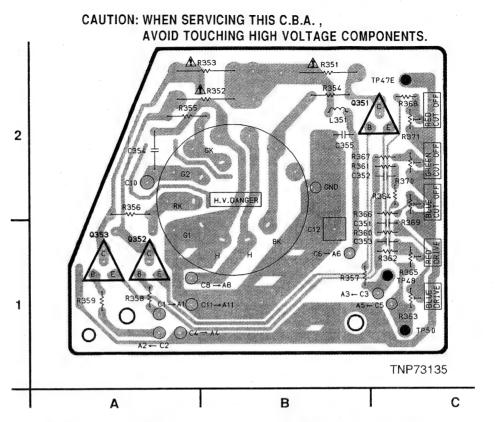
TV POWER			
1	C		
IC801	C-2		
CONNE	CTOR		
B1	A-3		
B2	A-1		
В3	D-3		
B4	D-3		
B5 C-1			
B6 C-1			
TEST POINT			
TP91	D-2		
TP92	D-1		
TP93	D-2		

C.B.A. TNP73140BB (E,F,G,H)

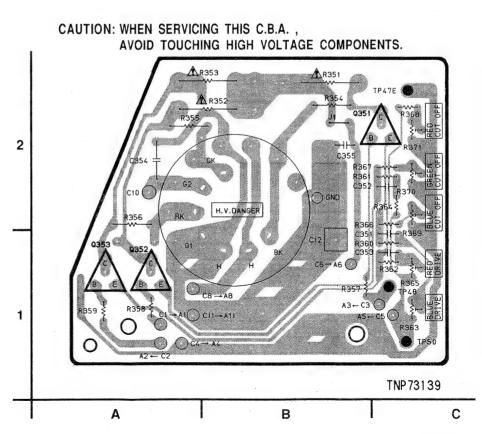


TV POWER			
	С		
10801	C-2		
CONNE	CTOR		
B1	A-3		
B2	A-1		
В3	D-3		
B4	D-3		
B 5	C-1		
B6	C-1		
TEST	POINT		
TP91	D-2		
TP92	D-1		
TP93	D-2		

CRT C.B.A. TNP73135AA (A,B,C,D)



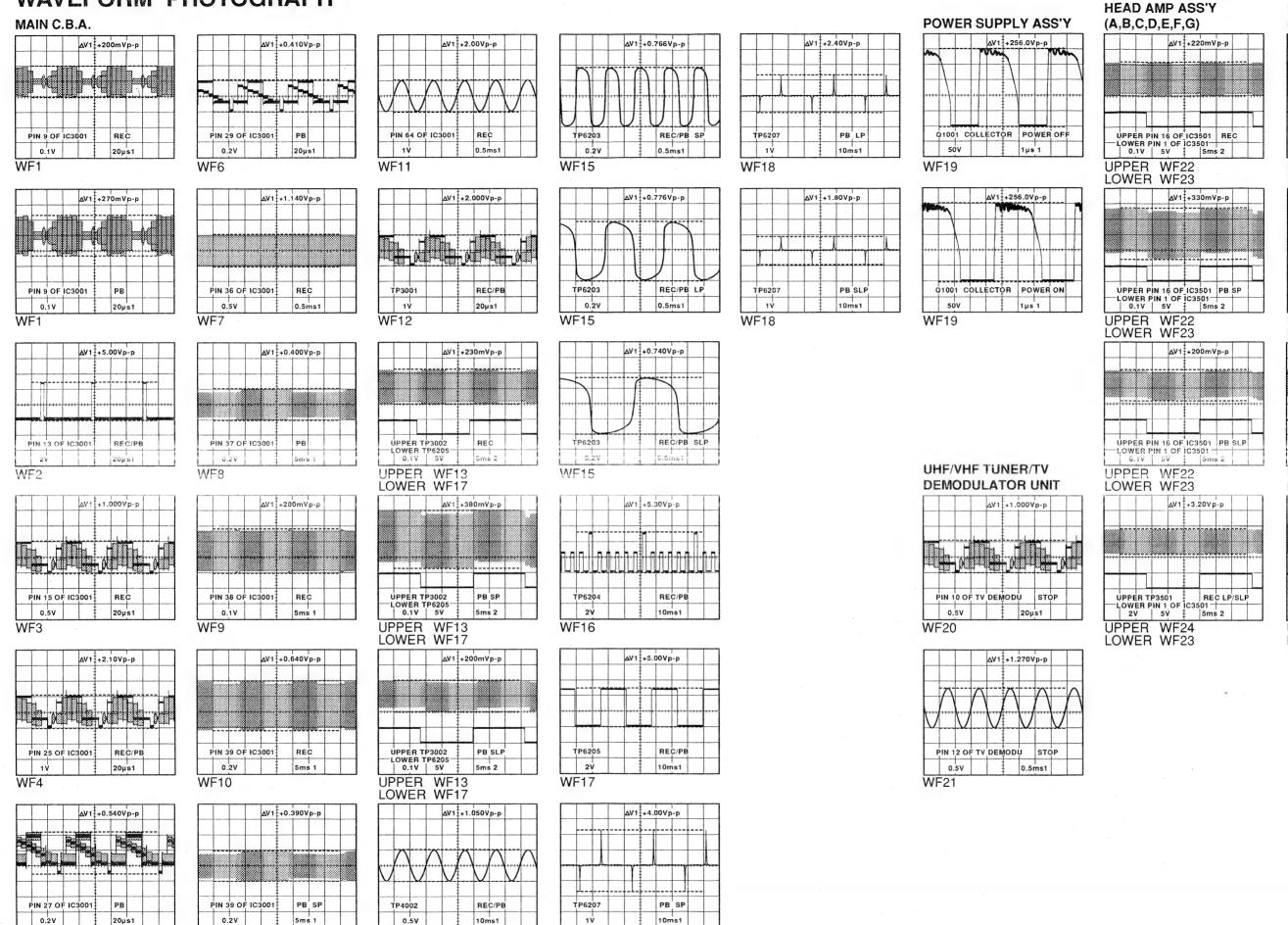
CRT C.B.A. TNP73139AA (E,F,G,H)



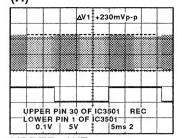
	CRT			
	TRANS	ISTOR		
	Q351	B-2		
	Q352	A-1		
	0353	A-1		
	CONNE	CTOR		
- 1	C1	A-1		
	C2	A-1		
	C3	C-1		
	C4	A-1		
	C5	C-1		
	C6	B-1		
	C8	B-1		
	C10	A-2		
	C11	B-1		
	C12	B-1		
	TEST	POINT		
	TP47E	C-2		
	TP48	C-1		
	TP50	C-1		
		TMENT		
	R363	C-1		
	R365	C-1		
	R369	C-1		
	R370	C-2		
	R371	C-2		

CRT		
TRANS	ISTOR	
Q351	C-2	
Q352	A-1	
0353	A-1	
CONNE	CTOR	
C1	A-1	
C2	A-1	
C3	C-1	
C4	A-1	
C5	C-1	
C6	B-1	
C8	A-1	
C10	A-2	
C11	A-1	
C12	B-1	
TEST	POINT	
TP47E	C-2	
TP48	C-1	
TP50	C-1	
	TMENT	
R363	C-1	
R365	C-1	
R369	C-2	
R370	C-2	
R371	C-2	

WAVEFORM PHOTOGRAPH



WF18



TV MA

PIN 9

WF28

PIN 1

WF29

 ψ

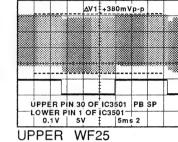
PIN 2

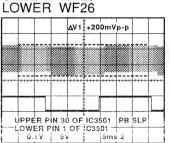
WF30

PIN 27

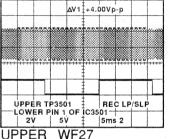
WF31

UPPER WF25 LOWER WF26





UPPER WF25 LOWER WF26



UPPER WF27 LOWER WF26

PIN 3

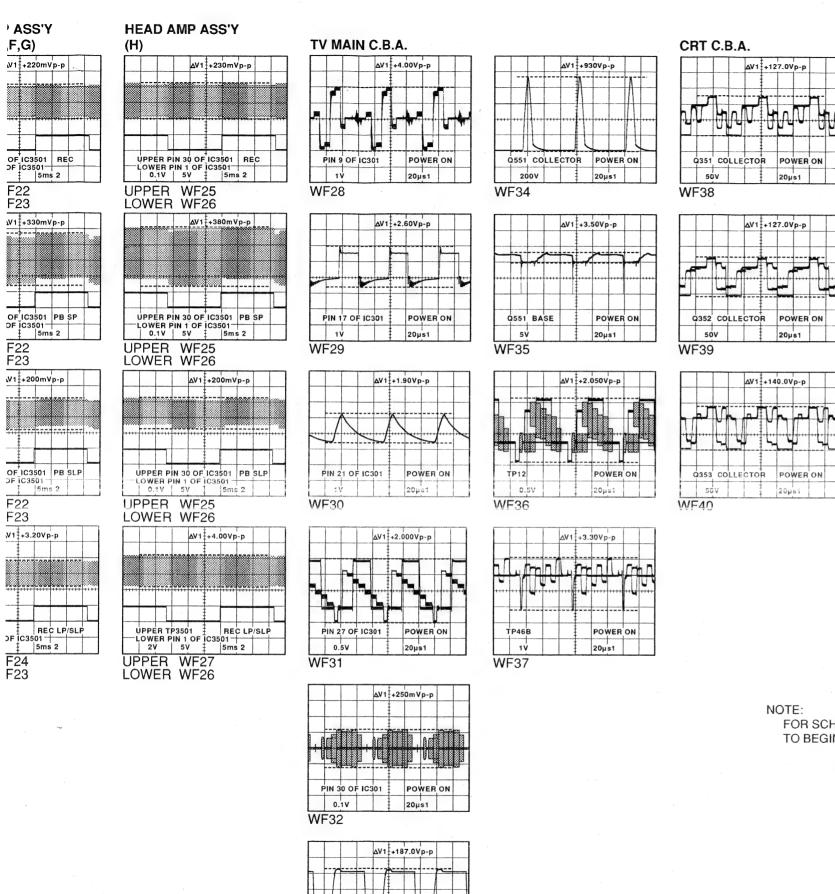
WF32



WF14

WF10

WF5



COMPARISON CHART
OF MODELS & MARKS

OF MUDELS &	MARK
MODEL	MARK
PV-M1324	Α
PV-M1324W	В
VV134	C
VV134W	D
PV-M2024	Ε
VV204	F
VV204W	G
PV-M2044	Н
NOT USED	Z

FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION (SECTION III)

(S	YST	TE
•	MODE PIN NO. 1C6001 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	STO
	PIN NO	1 510
	106001	1
	1	<u> </u>
	2	1
	3	1
	1	1.
	- -	+
	- -	+-
	7	- V.
	8	10
	1 0	$\frac{1}{0}$
	10	1 0.
	11	10.
	12	5
	13	5
	1/	1 0
	15	1
	16	1
	17	1
	18	 -
	10	5. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
	20	5
	21	1 0.
	22	2
	77	1 0
	20	0.
	25	2.
	20	0
	20	2
	27	1 - 2
	20	-
	20	
	31	1
	20	1.
	32	1. 2. 0 0
	34	0
	25	
	20	1
	27	0.
	30	1
	30	1
	37 38 39 40 41 42	1.
	40	5
	41	0.
	42	2
	43	2.
	43 44 45 46 47	2,
	40	2.
	40	1
	47	1.
	40	0
l	49 E0	0
ŀ	DU	<u> </u>
	51	۷.
-	52	2.
	53	2.
	54	5.
ļ	55	0
ļ	56	U
	48 49 50 51 52 53 54 55 56 57	0. 1. 1. 2. 5. 0 2. 2. 2. 2. 1. 0 0 0 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 5. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
l	58	2.

VOLTAGE CHART

2.7 4.8 4.8 14.5 14.5 14.5 14.0 14.0 14.0 14.5 14.0 14.0 14.2 14.2 14.2

0.7 0.7 0.7

0.1 0.7 0.7

3.1 3.1 3.1

5.2 5.2 5.2

1.1 2.5 2.5

2.5 2.5 2.5 2.6 0.1 0.1 1.7 1.7 1.7 1.6 1.6 1.6 1.6 1.6 1.6

1.6 1.6 1.6

26 2.7 4.0 5.1 27 0 0.2 0.2

14.5 | 13.9 | 13.9

2.7 4.1 5.1

 14.6
 14.2
 14.2

 14.5
 14.0
 14.0

2.7 4.1 5.1

6 14.5 14.5 14.5 7 14.0 14.0 14.0 8 2.7 4.8 4.8

> 13.3 13.0 13.3 13.0 0.1 0.1

6 2.7 2.7 2.7 7 2.6 2.6 2.6

8 3.0 9.0 9.0 9 0.9 0.9 0.9 10 2.9 2.9 2.9

5.1 5.1 5.1

3.9 3.9 3.9 3.9 3.9 3.9

3.9 3.9

 15
 1.2
 1.2
 1.2

 16
 13.3
 13.3
 13.3

 17
 13.3
 13.3
 13.3

 18
 0.1
 0.1
 0.1

4 0.6 0.6

5.1

0.6

3.9

1.6 1.6 1.6 1.6

2.7 4.1

0 0.2

0.5 0.5

PIN NO.

IC2501

14

15

IC2502

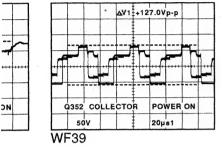
20µs1

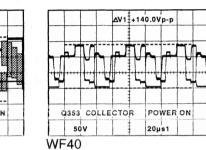
Q501 COLLECTOR POWER ON

50V

WF33

CRT C.B.A. AV1 +127.0Vp-p AV2 +127.0Vp-p AV351 COLLECTOR POWER ON 20µs1 WF38





CO	MPARISON	1 (CHART
0F	MODELS	&	MARKS

MODEL MARK PV-M1324 A PV-M1324W B VV134 C VV134W D PV-M2024 E VV204 F VV204W G PV-M2044 H NOT USED Z		
PV-M1324W B VV134 C VV134W D PV-M2024 E VV204 F VV204W G PV-M2044 H	MODEL	MARK
	PV-M1324W VV134 VV134W PV-M2024 VV204 VV204W PV-M2044	B C D E F G H

NOTE:
FOR SCHEMATIC AND C.B.A. DIAGRAM NOTES, REFER
TO BEGINNING OF SCHEMATIC SECTION (SECTION III)

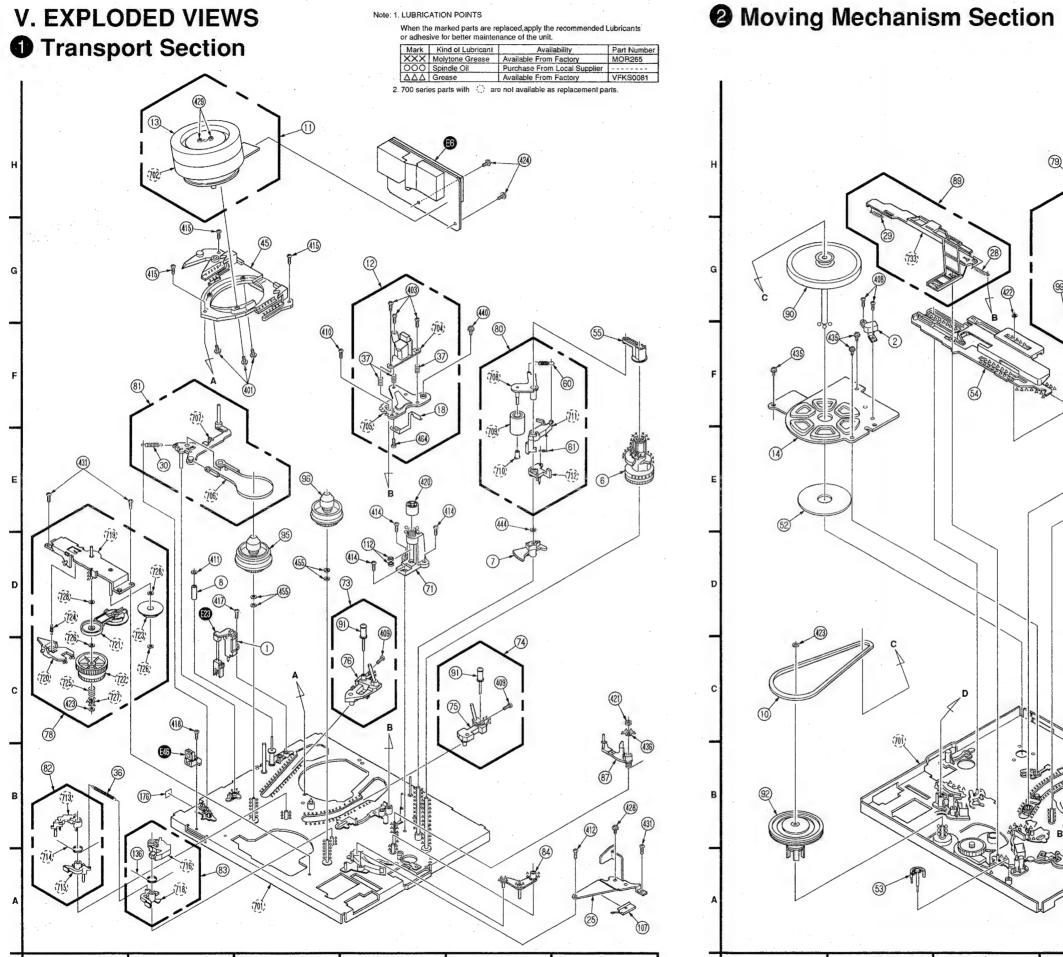
VOLTAGE CHART (SYSTEM CONTROL/SERVO)

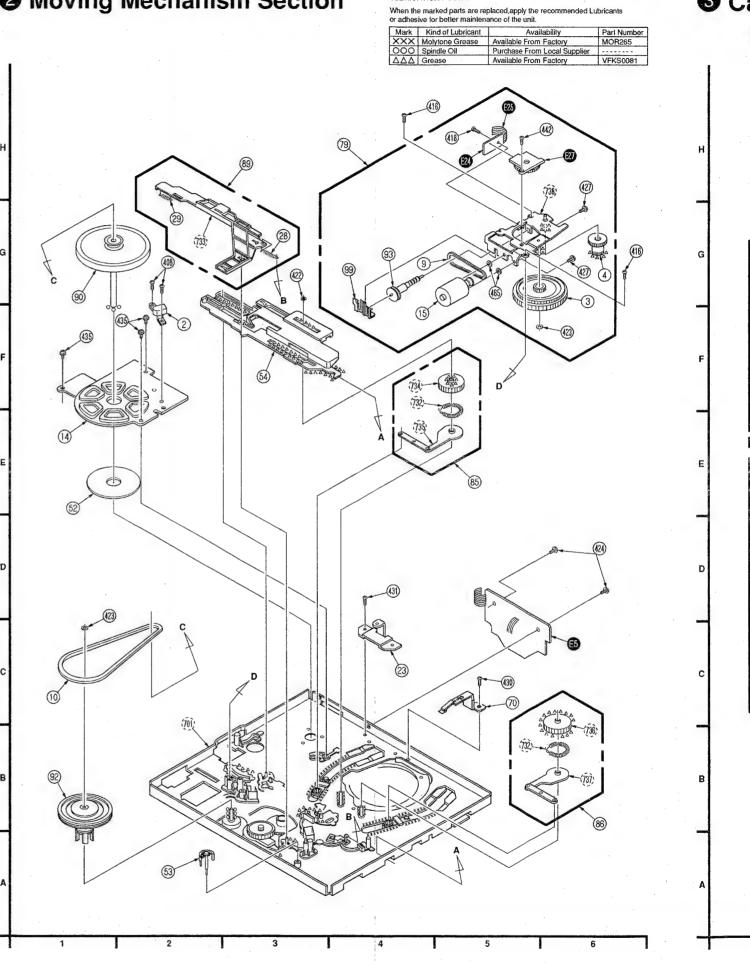
OL	. 1 ~	GL	CI	
MODE PIN NO.\	ST0P	FF	REW	
IC2501				
1	2.7	4.8	4.8	
2	14.5	14.5	14.5	
3	14.0	14.0	14.0	
4		14.0	14.0	
5	14.5 14.2	14.0	14.0	
6	14.2	14.2	14.2	-
7	0.7	0.7	0.7	
		0.7	0.7	
8	0	0	0	
9	0.1	0.7	0.7	
10	0	0.2	0.2	
11	0.5	0.5	0.5	
12				
13	3.1	3.1	3.1	
14	5.2	5.2	5.2	
15	1.1	2.5	2.5	
16	2.5 2.6	2.5 0.1	2.5	
17	2.6	0.1	0.1	
18	1.7	1.7	1.7	
19	1.6	1.6	1.6	
20	1.6	1.6	1.6	
21	1.6	1.6	1.6	
22	1.6	1.6	1.6	
23	1.6	1.6	1.6	
24	1.6	1.6	1.6	
25				
26	2.7	4.0	5.1	
27	0	0.2	0.2	
28	2.7	4.1	5.1	
IC2502	217		0.1	
1	14.5	13.9	13.9	
2	2.7	4.1	5.1	
3	14.6	14.2	14.2	
4	14.5	14.0	14.0	
5	2.7	4.1	5.1	
6	14.5	14.5	14.5	
7	14.0	14.0	14.0	
8	2.7	4.8	4.8	
0	2.1	4,0	4.0	
IC2601				
1	13.3	13.0	13.0	
2	13.3	13.0	13.0	
3	0.1	0.1	0.1	
5	0.6	0.6	0.6	
	0 7	0	0	
6 7	2.7	2.7	2.7	
	2.6	2.6		
8	3.0	9.0	9.0	
9	0.9	0.9	0.9	
10	2.9	2.9	2.9	
11	5.1	5.1	5.1	
12	3.9	3.9	3.9	
13	3.9	3.9	3.9	
14	3.9	3.9	3.9	
15	1.2	1.2	1.2	
16	13.3	13.3	13.3	
17	13.3	13.3	13.3	
18	0.1	0.1	0.1	

MODE	STOP	FF	REW
PIN NO.			
106001			
1 2	5.1	5.1 0	5.1
3	1.4	1.4	0 1.4
4	1.4	1.4	1.4
5			
6	0.3	0.3	0.3
7			
8	0.1	0.1	0.1
9	0.1	0.1	0.1
10	0.1	0.1	0.1
-11	0.1	0.1	0.1
12 13 14	5.1	5.1	5.1
13	5.1 0.5	5.1 0.5	5.1 0.5
14	0.5	0.5	0.5
15 16			
16	0.1	0.1	0.1
17	4.8	4.8	4.8
18	5.1 5.1 5.1	5.1	5.1
19 20	5.1	5.1 5.1	5.1 5.1
20	5.1	5.1	0
21 22	0	2.6	2.6
22	2.6		
23 24	0.1 2.6	0.1	0.1
25	0	2.0	2.0
25 26	2.4	2.0	2.0
27	2.6	2.6 2.6 2.4 2.6	2.6 2.6 2.4 2.6
28	2.0	2.0	2.0
29			
30			
31	1.1	1.1	1.1
32	2.0	2.0	2.0
33	0	0	0
34	0	0	0
35		-	
36	0.6	0.6	0.6
37	0.1	5.1	5.1
38	1.8	1.8	1.8
39	1.1	2.5	2.5
40	2.7	0.1	5.1
41	5.0	5.0	5.0
42	0	0	0
43	2.9	2.9	2.9
44 45	2.6	2.6	2.0
45	2.6	2.6	2.6
40	1.2	1.2	1.2
48	0	0	0
49	0	0	0
50	2.6	2.6	2.6
51	2.6	2.6	2.6
52	2.3	2.5	2.5
53	2.8	2.4	2.4
54	2.8 5.1	2.4 5.1	5.1
55	0	0	0
56	0	0	0
57	0	0	0
58	2.6	2.6	2.6
59	2.6	2.6	2.6
60	0	0	0

:HVO)					
MODE	STOP	FF	REW		
PIN NO.					
61	2.8	2.8	2.8		
62	2.6	2.6	2.6		
63	5.1	5.1	5.1		
64	2.1	5.1 2.6 3.9	2.1		
04	2.6 3.9	2.0	2.6		
65	3.9	3.9	3.9		
66	5.1	5.1	5.1		
67	5.1	5.1	5.1		
68					
69	0.8	0.1	0.1		
70	0	0	0		
71	0	0	0		
72	5.1	5.1	5.1		
69 70 71 72 73	5.1	5.1	5.1		
7.4	- J. I	J. 1			
74	5.1	5.1	5.1		
/5	5.1	5.1	5.1 5.1		
/6	5.1	5.1	5.1		
75 76 (A, B, C, E	0, E, F, G	;)			
76	0	0	0		
(H)					
77	0	0	0		
78	5.1	0.2 5.1	0.2		
79	5.1	5.1	0.2 5.1		
75	0.1	5.1	5.1		
80 81	0.2	5.1	5.1		
81	5.1	0.2	0.2		
82					
(A, B, C, E 82 (H) 83), E, F, G	;)			
82	2.6	2.6	2.6		
(H)					
83					
(A,B,C,E)	FFG	()			
83	5.1	0.1	0.1		
83 (H) 84 IC6003	J, 1	V. 1	V. I		
04	0.1	0.1	0.1		
100000	U. I	V. I	U. I		
100003	_				
	0	0	0		
3 4	0	0	0		
3 ·	0	0	0		
4					
5	0	0	0		
5 6 7 8	13.3	0 13.3	13.3		
7	0.9	1.3	1.3		
0	0.5	0	0		
0	1.2	1 2			
9 1C6004	1.2	1.2	1.2		
100004	4.0	1.0	4.0.		
1 2 3 4 1C6201	1.3	1.3	1.3		
2	0	0	0		
3	0	0	0		
4					
IC6201					
1	2.5	2.5	2.5		
2	2.5 2.5 2.5 0	2.5	2.5 2.5 2.5 0		
2	2.5	2.5	2.5		
J	2,3	2.0	2.3		
1 2 3 4 5 6	U	2.5 2.5 2.5 0 2.6 2.6 2.4 5.1	0.0		
5	1.2 1.2 1.1	2.6	2.6 2.6 2.4		
6	1.2	2.6	2.6		
7	1.1	2.4	2.4		
8	5.1	5.1	5.1		
	L				

MODE	ST0P	FF	REW
PIN NO.			
06001			
E	0	0	0
C	5.1	5.1	5.1
В			
06002			
E C	0	0	0
	5.1	5.1	5.1
В			
06003			
E	0	0	0
C	10.0	10.0	10.0
В	0.3	0.3	0.3
06004			
Е	5.1	5.1	5.1
C	5.1	5.1	5.1
В	4.3	4.3	4.3
06005			
Е	0	0	0
С	0.1	0.1	0.1
В	5.1	5.1	5.1
06006			
E	5,1	5.1	5.1
C	0	0	0
В	5.1	5.1	5.1
06007	-		
E1	0	0	0
E2	12.0	12.0	12.0
C1	12.0	12.0	12.0
C1 C2	12.0	12.0	12.0
B1	0	0	0
B2	12.0	12.0	12.0
06201			
E C	1.1	2.6	2.6
C	1.1	2.6	2.6
В	1.1 0.5	2.6 5.1	2.6 5.1
TP6001	5.1	5.1	5.1
TP6002	1.8	1.8	1.8
TP6003	0.8	0.1	0.1
TP6004	5.1	5.1	5.1
TP6005	5.1	5.1	5.1
TP6006	4.8	4.8	4.8
TP6007	3.9	3.9	3.9
TP6008	0	0	0
TP6009	5.1	5.1	5.1
TP6011	0	0	0
TP6012			
TP6014	5.1	5.1	5.1
TP6015	5.1	5.1	5.1
TP6016	10.0	10.0	10.0
TP6201		2.6	2.6
TP6202	2.6 2.4 2.6	2.4	2.4
TP6203	2.6	2.4	2.4 2.6 1.2
TP6204	1.2	1.2	1.2
TP6205	2.6	2.6	2.6
TP6206	0	0	0
TP6207	2.6	2.6	2.6
TP6208	2.5	2.5	2.5
TP6209	1.1	2.5	2.5 2.5 2.6
TP6210	1.2	2.6	2.6
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LUBRICATION POINTS

3 Cas

2 Moving Mechanism Section

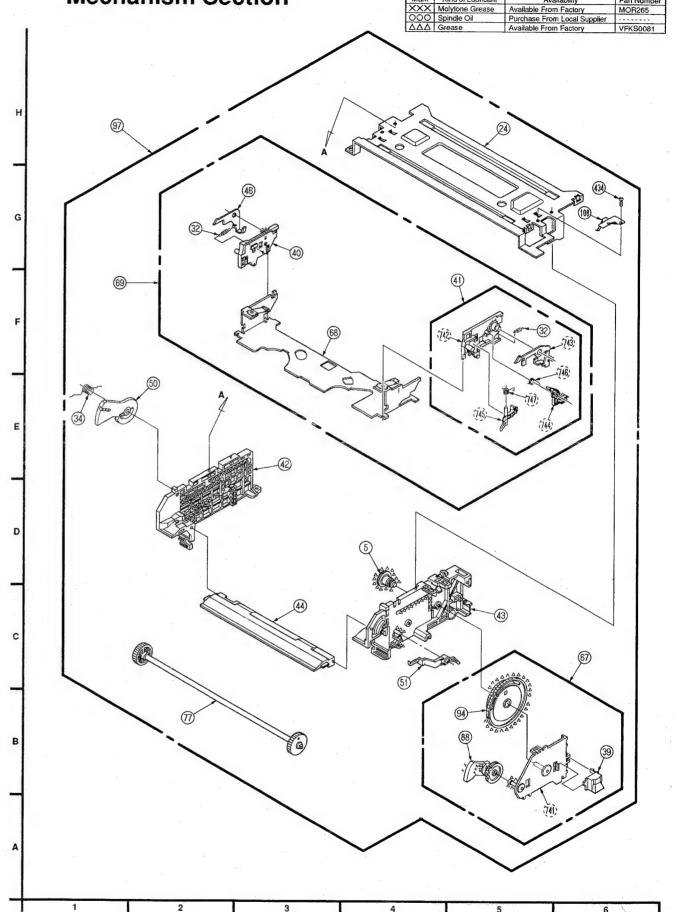
Mark	Kind of Lubricant	Availability	Part Number
XXX	Molytone Grease	Available From Factory	MOR265
000	Spindle Oil	Purchase From Local Supplier	
$\Delta\Delta\Delta$	Grease	Available From Factory	VFKS0081

3 Cassette Up **Mechanism Section**

When the marked parts are replaced,apply the recor adhesive for better maintenance of the unit.

Mark	Kind of Lubricant	Availability	Part Number
	Molytone Grease	Available From Factory	MOR265
000	Spindle Oil	Purchase From Local Supplier	
$\Delta\Delta\Delta$	Grease	Available From Factory	VFKS0081

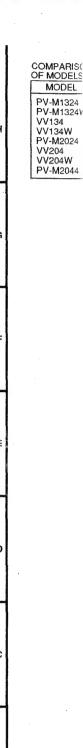
		△△△ Grease Available From Factory VFKS0081
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	(a) (b)	
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-	99	(3)
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		Train D
-		(132)
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1		85)
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		(3)
	(C)	
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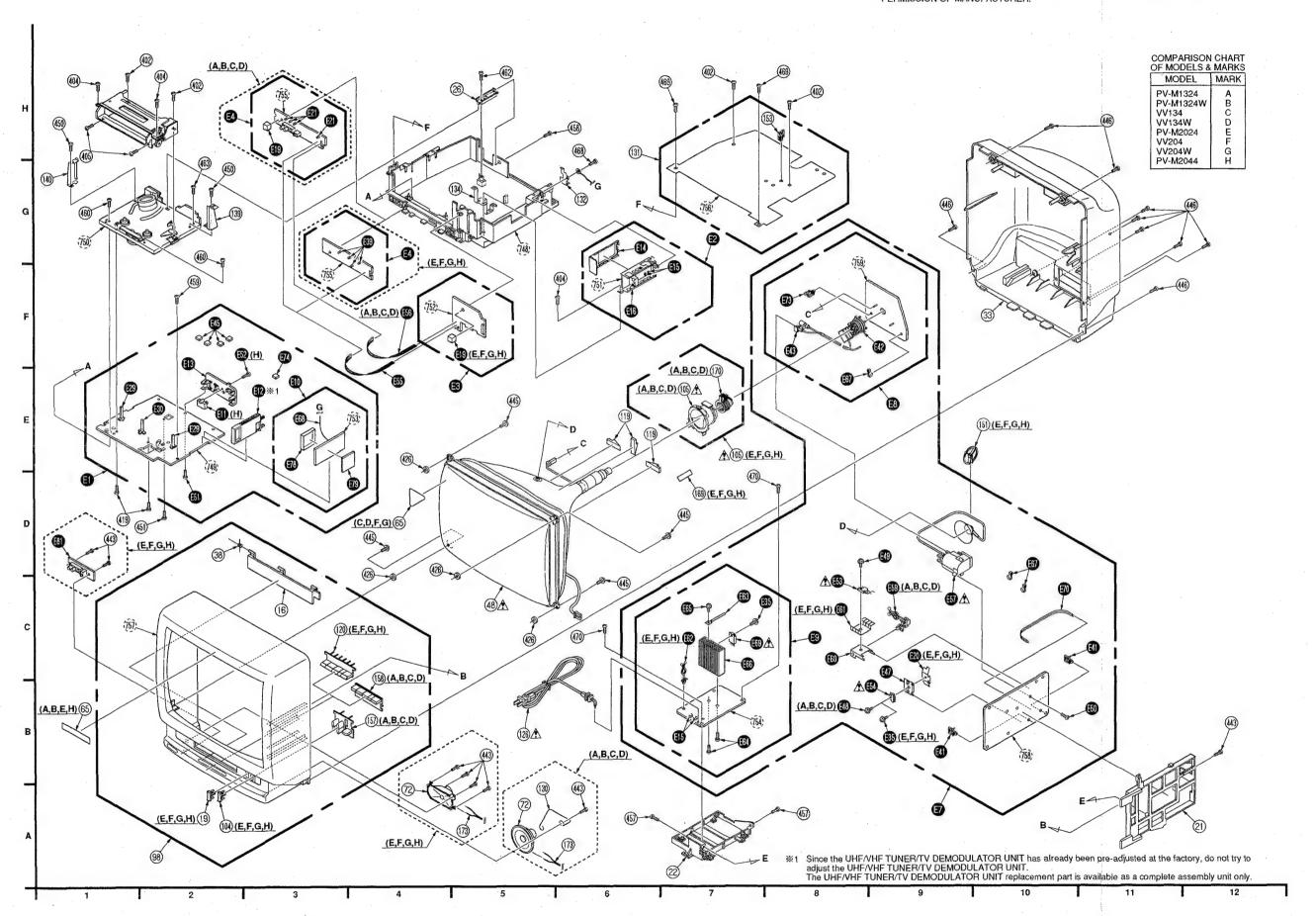
4 Chassis Frame Section

IMPORTANT SAFETY NOTICE:
THERE ARE SPECIAL COMPONENTS USED IN THIS EQUIPMENT WHICH ARE IMPORTANT FOR SAFETY. THESE PARTS ARE MARKED BY A IN THE SCHEMATIC DIAGRAMS AND REPLACEMENT PARTS LIST. IT IS ESSENTIAL THAT THESE CRITICAL PARTS SHOULD BE REPLACED WITH MANUFACTURER'S SPECIFIED PARTS TO PREVENT X-RADIATION, SHOCK, FIRE, OR OTHER HAZARDS. DO NOT MODIFY THE ORIGINAL DESIGN WITHOUT PERMISSION OF MANUFACTURER.

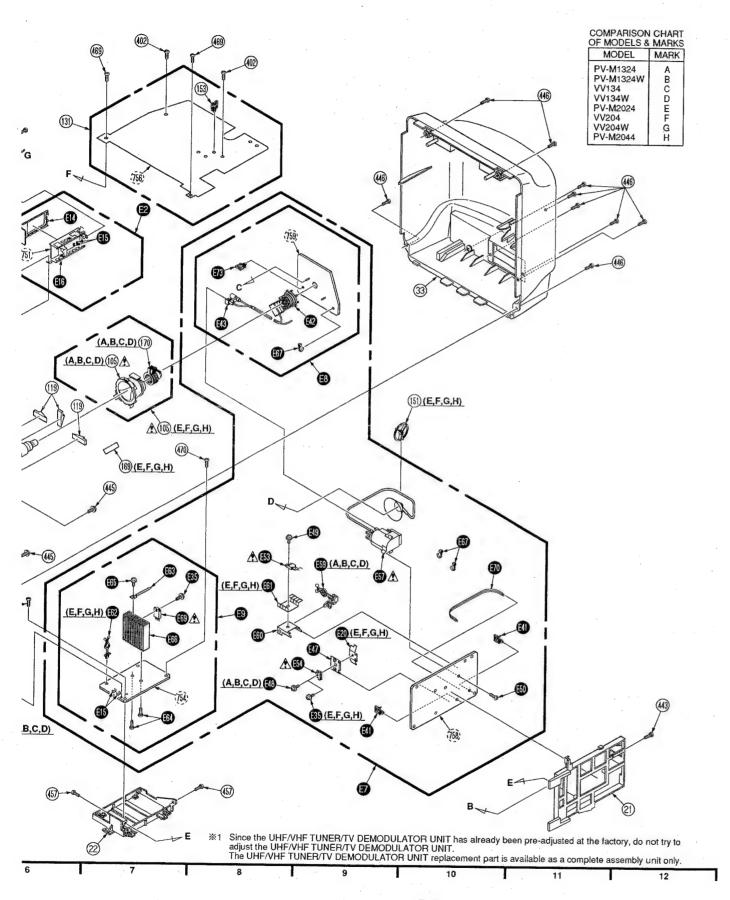




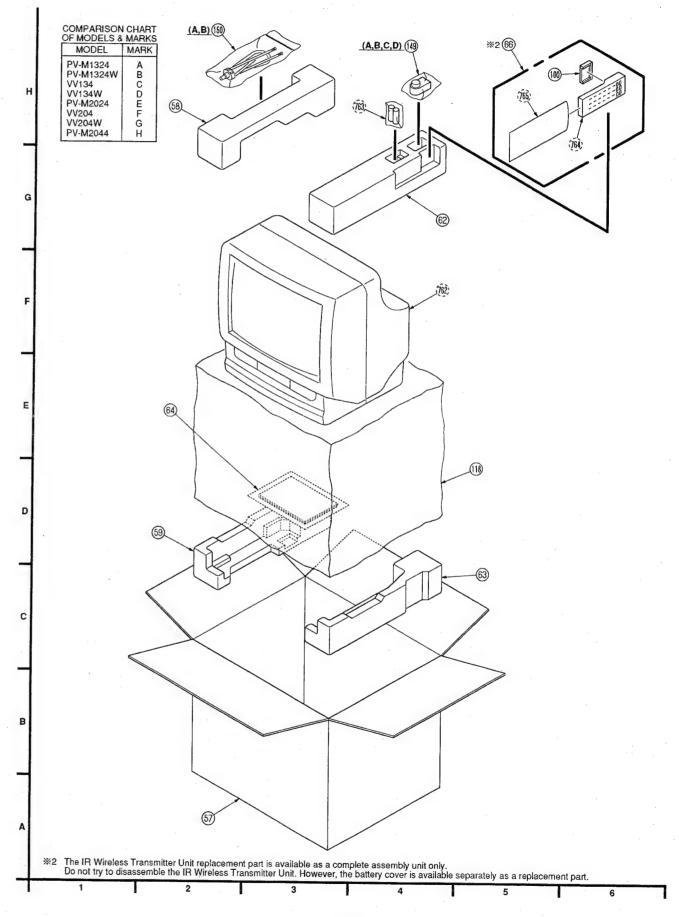
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IMPORTANT SAFETY NOTICE:
THERE ARE SPECIAL COMPONENTS USED IN THIS EQUIPMENT WHICH ARE IMPORTANT FOR SAFETY. THESE PARTS ARE MARKED BY A IN THE SCHEMATIC DIAGRAMS AND REPLACEMENT PARTS LIST. IT IS ESSENTIAL THAT THESE CRITICAL PARTS SHOULD BE REPLACED WITH MANUFACTURER'S SPECIFIED PARTS TO PREVENT X-RADIATION, SHOCK, FIRE, OR OTHER HAZARDS. DO NOT MODIFY THE ORIGINAL DESIGN WITHOUT PERMISSION OF MANUFACTURER.



6 Packing Parts and Accessories Section



VI. REPLACEMENT PARTS LIST

1. MECHANICAL REPLACEMENT PARTS LIST

USE ONLY ORIGINAL VIDEO REPLACEMENT PARTS: To maintain original FUNCTION and RELIABILITY of repaired units, use only ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in the parts list section of the Service Manual.

- Be Sure to make your orders of replacement parts according to this list.
 IMPORTANT SAFETY NOTICE
- Components identified by the sign A have special characteristics important for safety.

When replacing any of these components, use only the specified parts.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK	MODEL	MARK	MODEL	MARK
PV-M1324	A	PV-M1324W	В	VV134	C
VV134W	D	PV-M2024	E	VV204	85 F
VV204W	G	PV-M2044	Н.		

(The complate Exploded Views are shown in this manual.)

V. EXPLODED VIEWS

1 Transport Section		DOMESTICAL STREET	
718		1701	Comments of the comments of th
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The state of the s		1.7 Box 191	

tem No.	Grid No.	Description	Pcs/ Set	Part No.	Remark
		24,5002		67.1 x 9.1.1	7.7
		MECHANISM PARTS ON	CHASSI	3 #99775 04/555	
		1 331-25543		\$345 K #8626	1 1 1 1 1 1 1 1 1
1	1 (C-3)	FE HEAD PROCESS	1 ()	VBSS0026	1.77
2	2(F-2)	FG HEAD ON OR OHY	43	VBKS0024	F 21 61
3	2(G-6)	CAM GEAR	1	VDGS0400	511.
4	2(G-6)	LINK GEAR	. 1	VDGS0289	
5	3(D-4)	WORM WHEEL	1 1	VDGS0323	1 70
6	1 (E~6)	PINCH CAMPERSON	1	VDGS0294	2.3 1.1 85
7	1 (D-5)	P5 SECTOR GEAR	47.4	VDGS0296	.1 50
8	1 (D-2)	P1 ROLLER	1	VDPS0210	
97%	2(G-4)	LOADING MOTOR BELT	1	VDVS0069	3. "
10	2(C-1)	CAPSTAN BELT	1	VDVS0070	
11		CYLINDER UNIT	axt.	SHEME KETH TOMAS	1
	1 (H-3)	(A, B, C, D, E, F, G)	- 10 1	VEGS0370	1 (1)
	1 (H-3)	(H) 35x8864	1	VEGS0372	
12	1 (G-4)	A/C HEAD UNIT	104	VEHS0500	1 1 HZ
13		UPPER CYLINDER UNIT	148	A MAR GUTAL	1 40
	1 (H-2)	(A, B, C, D, E, F, G)	4/5	VEHS0536	1 5 353
	1 (H-2)	(H) 24 70384	10/11/	VEHS0537	1. 1.3
14	2(E-1)		1	VEMS0237	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
15	2(F-4)	LOADING MOTOR UNIT	48 1	VEMS0242	*22.0
16		CASSETTE DOOR	52	S WERDS LAPTER!	₹80
	4 (C-3)	(A)	17	TKK779559-2	AKE!
+149	4(C-3)	(B) 35.10% 13	1	TKK779559-1	AKEI
34	4(C-3)	(C) 2 1-89°C	1	TKK779559-3	AKEI
_	4 (C-3)	(D9) 2012/85/89	1	TKK779559-4	AKE
100	4 (C-3)	(F) *3***********************************	111	TKK779557-2	AKE
190	4(C-3)	(G) 185.870"	19.0	TKK779557-3	AKEI
		CASSETTE DOOR UNIT	13	F. #9808 361000	1 3 283
- 51	4(C-3)	(E, H) 10 602/07-1	10	TXFKK01204P	AKE
18	1(F-4)	GROUNDING PLATE	1.75	VMBS0962	1 1 1 11
19		VOLUME BUTTON		C YEAROS WERE	(4)
10	4(A-2)	(E, F, H) (C) /	1	TBX7786102	AKEI
21.	4(A-2)	(G)	1	TBX7786103	AKE1
21	4(A-12)		1	TMX77403	AKEI
22	4(A-7)	PCB HOLDER -B	1	TMX77404	AKEI
23	2(C-4)	P. C. B. BRACKET		VMAS1844	

tem No.	Grid No.	Description	Pcs/ Set	Part No.	Remark
24	3(H-5)	TOP PLATEOGRAM	1	VMAS1849	
25	1 (A-6)	OPENER ANGLE	1	VMAS1854	
26	4 (H-5)	CHASSIS ANGLE	1	TUX77803	
28	2(G-3)	ROD RETURN SPRING	1	VMBS0895	1 355
29	2(G-2)	RELEASE PIECE SPRING	1	VMBS0896	ent T
30	1 (E-2)	TENSION SPRING	1 :	VMBS0898	- ارژانج :
32	3(F-5)	SET LEVER SPRING	2	VMBS0901	145.00
	3(G-2)	4610862V	1.20 T	SAS COST DARGAD	5 Maria 1
33		BACK COVER	1284 (3)	CAR 808 34.3AC	28 Az a 1
	4(F-10)	(A, C) 1880 01307	1	TKU781501	AKE
		(B,D)4 6082	1 1	TKU781503	AKE
_		(E, F, Ha) 102 WAY	1 1	TKU781601	AKE
_	4(F-10)	(G) 92563.897	135 1351		AKE
24			_	TKU781604	AKE
34	3(E-1)	WIPER SPRING -L	1	VMBS0906 (1898)	
36	1 (B-1)	MAIN BRAKE SPRING	1	VMBS09103	1 11 40
37	1 (F-4)	ADJUST SPRING	3	VMBS0915	17.44
38		CASSETTE DOOR SPRING	1.90		A Attention
	4(D-2)	(A, B, C, D)	1	KTES7299 \$800AC	27.33/2
	4(D-2)	(E, F, G, H)	1	4TES7612 0€10/00.	AKE
39	3(B-6)	SENSOR COVER	1 -	VMDS0717	1 6-6-1
40	3(G-3)	HOLDER GUIDE :-L	1	VMDS0719 45	1-741
41	3(F-5)	CASSETTE HOLDER GUIDE R UNIT	1	VXAS1 545	1 144
42		SIDE PLATE -L	11	VMDS0722	i diadit i
43	3(C-5)	SIDE PLATE -R	1	VMDS0723	7 12-03 1
44	3(C-3)	CASSETTE GUIDE	1	VMDS0724	7 (1-40)
45	1 (G-3)	CYLINDER BASE	1	VMDS0925	1 (7-10): 1 -
_			1	VMLS0785	TOTAL STATE
46	3(G-3)	SET LEVER -L	1 1		
48	142 5	PICTURE TUBE SUB ASS'Y	1	Terko pinesar arabasa	(6-8)
	4(C-5) <u>∧</u>	(A, B, C, D)	12 7 2 -	TXFVB02134E	AKE
	4(C-5) <u>∧</u>	(E, F, G, H) ()	1	TXFVB02204E	AKE
50		WIPER ARM -L	1	VMLS0790	1 - 1 - 1 - 1 - 1
51	3(C-4)	CASSETTE LEVER	1	VMLS0960	
52	2(E-1)	SUB PLATE	1	VMAS1470	
53	2(A-2)	CASSETTE DOWN DETECT PIECE	1	VMMS0077	27 - 13 - 1
54	2(F-3)	MAIN ROD	1	VMMS0078	
55	1 (F-6)	PINCH CAM CAP	1	VMXS0782	
57		PACKING CASE			F 1 7 7 5
12%	5(A-2)	(A:) 00: 087/F.X	1	TPC7810408	AKE
: 1	5(A-2)	(B)	1	TPC7810409	AKE
- 37	5(A-2)	(C) 4501Y6-Y7	1	TPC7810410	AKE
	5(A-2)	(D) TASTERFOU	1	TPC7810411	AKE
	5(A-2)	(E)	1	TPC7841622	AKE
_	5(A-2)	(F) \$1872-00	1	TPC7841624	AKE
		(G) AC (CAS)			AKE
_	5 (A-2)		1	TPC7841625	
	5(A-2)	(H)	1	TPC7841623	AKE
58		LEFT CUSHION -TOP	-	0.4,8,8,2	. Shari
1 930		(A, B, C, D)	1	TPD971032	AKE
	5(H-2)	(E, F, G, H)	1	TPD971036	AKE
59		LEFT CUSHION -BOTTOM		(0.7784)	A(1-3)5]
14	5 (D-2)	(A, B, C, D)	1	TPD972032	AKE
. 1/4	5(0-2)	(E, F, G, H)	1	TPD972036	Z AKE
60	1 (F-6)	PRESSURE ROLLER SPRING	1	VMBS0702	ás i
61	1 (E-6)	PRESSURE ROLLER ARM SPRING	1	VMBS0590	3-47-11
52		RIGHT CUSHION -TOP		FALM SOLUMINE	3 13-60 (
	5(G-4)	(A, B, C, D:)	1	TPD971031 386	AKE
	5(G-4)	(E,F,G,H)	1	TPD971035	AKE
63		RIGHT CUSHION -BOTTOM	+	(3,5 8,A ;	1351
. 56	5 (C-5)	(A, B, C, D)	1	TPD972031	a-dia AKE
	5 (C-5)	(E, F, G, H)	100	TPD972035 A	AKE
64	0(0-0)	FAN BAG	7 3555	WITUS VOLVANIO	- ANE
	E(E O)	(A,B)	+		1 10 70 5 400
	5 (E-2)	(A, D) All A	1	VQFS3003	S-CNAKE
- 1	5 (E-2)	(C, D)) 28 TV/3°	1	V0FS3007	AKE
1 A3.	5(E-2)	(E, H) () ()	1	VQFS3004	AKE
-/3.	5(E-2)	(F, G)	1	VQFS3008	AKE
35		STICKER		GROS DIA	1 9
	4 (B-2)	(A, B)	1	T0F77186	A (6-3))
-,4	4(0-4)	(C, D)	1	T0F77189	AKE
	4 (B-2)	(E, H2)(13.00 ≥0	1	TQF77185	A
750	4 (D-4)	(F,G) 64 (88)	1		Δ(C-d)+ AKE
56		IR WIRELESS TRANSMITTER UNIT	1	OFFICE SPECIAL SECTION	71112
	5 (H-5)	(A, E)	1	VSQS1370	[(C+218]
\neg	5 (H-5)	(B)	12	VSQS1372	1
13	5 (H-5)	(C, D, F, G)	1	VSQS1373	(6-10)
	5 (H-5)	(H) > 10 (1) (2) (3) (4)		VS0S1371	3 (B) (C)
67	3(C-6)	SUB PLATE ASS'Y		VXAS1531	
"	3(0-0)	SUB PLATE ASS Y	ar Teck	VXASI531	
-		**************************************		2 1 2 2	1 fr ()
		1. 1/2	1		y 2 - 1

ltem No.	Grid No.	Description	Pcs/ Set	Part No.	Remark
68	3 (F-3)	CASSETTE HOLDER UNIT	1	VXAS1532	
69	3(F-1)	CASSETTE HOLDER ASS'Y	1	VXAS1534	
70	2(C-5)	EARTH PLATE UNIT	1	VXBS0042	
71	1 (D-4)	CAPSTAN HOLDER UNIT	1	VXDS0128	
72		SPEAKER			
	4(A-5)	(A, B, C, D)	1	USP65306	
	4(A-4)	(E, F, G, H)	1	EASG9D540A2	
73	1 (D-4)	LOADING POST S ASS'Y	1	VXDS0129	
74	1 (C-5)	LOADING POST T ASS'Y	1	VXDS0130	
75	1 (C-5)	LOADING POST BASE T UNIT	1	VXDS0133	
76	1 (C-4)	LOADING POST BASE S UNIT	1	VXDS0134	
77	3(B-2)	MAIN SHAFT UNIT	1	VXJS0052	
78	1(C-1)	CENTER BLOCK UNIT	1	VXKS0674	
79	2(H-4)	MOTOR BLOCK ASS'Y	1	VXKS0755	
80	1 (F-5)	PRESSURE ROLLER ARM UNIT	1	VXLS0836 VXLS0838	
81	1 (F-2)	TENSION ARM UNIT	1.		
82	1 (B-1)	BRAKE S UNIT	1:	VXLS0843	
83	1 (A-2)	BRAKE T UNIT	1 1	VXLS0846 VXLS0848	
84	1 (A-5)	CAM FOLLOWER ARM UNIT		VXLS0850	
85	2(E-5)	LOADING ARM T UNIT	1		
86	2(B-6)	LOADING ARM S UNIT	1	VXLS0852	
87	1(8-6)	P5 ARM UNIT	1 1	VXLS0853 VXLS0856	
88	3(B-5)	WIPER ARM R UNIT	1	VXLS0856 VXLS0917	
89	2 (H-3)	SECONDARY ROD UNIT CAPSTAN ROTOR UNIT	1	VXLS0917 VXPS0301	
90	2(G-1)	ROLLER POST UNIT	2	VXPS0301 VXPS0302	-
91	1 (C-5)	NULLER FUOI UNII		VAL SUSUE	
02	1 (D-4) 2 (B-1)	CLUTCH UNIT	1	VXPS0303	
92	2(G-4)	WORM UNIT	1	VXPS0303	
		GENEVA GEAR UNIT	1	VXPS0310	
94	3 (B-5)	SUPPLY REEL TABLE UNIT	1	VXRS0061	
95	1 (D-3)		1	VXRS0061	
96	1 (E-3)	TAKEUP REEL TABLE UNIT CASSETTE UP ASS'Y	+ +	VXYS0894	
97	3(H-1)	CABINET ASS'Y		VA130084	
98	1(1.0)		-	TYCKYOLLOAFD	AKE
	4(A-2)	(A)	1	TXFKY01134EP	
	4(A-2)	(B)	1.	TXFKY1134EPW	AKEI
	4 (A-2)	(C)	1 1	TXFKY01134EQ TXFKY1134EQW	AKEI
	4 (A-2)	(D)			
	4(A-2)	(E)	1 1	TXFKY01204EP TXFKY01204E0	AKEI
	4(A-2)	(F)	1	TXFKY1204EQW	AKEI
	4(A-2)	(G)	+	TXFKY1204EGP	AKE
00	4 (A-2) 2 (G-4)	(H) WORM SHAFT SUPPORT	1	VDBS0247	ANLI
99	2(0-4)	BATTERY COVER	-	7DD30247	
100	5(H-5)	(A, C, D, E, F, G, H)	1	VKFS1073	
	5 (H-5)	(B)	+ ;	VKFS1104	
104	3(11-3)	CHANNEL BUTTON	+	VIG 01104	
104	4 (A-2)	(E.F.H)	1	TBX7786002	AKEI
	4(A-2)	(G)	1	TBX7786003	AKE
105	4(A-Z)	DEFLECTION YOKE	+ '-	100000	rust.
105	A (E - 7) A	(A, B, C, D)	1	TLY26389F	AKEI
	-			OR TLY26389S	AKEI
	A/E-7) A	(E, F, G, H)	1	TLY26351F1	AKEI
	1			OR TLY26390S	AKEI
107	1 (A-6)	GROUNDING SPRING	1	VMBS0959	nnul
107	3 (G-6)	GROUNDING PLATE	1	VMCS0061	
112	1 (D-4)	DUST SEAL	2	VMXS0511	
118	1 (0-4)	POLYETHYLENE BAG		7	
110	5 (D-5)	(A, B, C, D)	1	TPE744031	AKE
	5 (D-5)	(E, F, G, H)	1	TPE744035	AKEI
119	4 (E-6)	DY ADJUSTMENT RUBBER	3	TMM77531	ANC (
120	- (C-0)	OPERATION BUTTON		(MIII 1001	
120	4 (C-3)	(E)	1	TBX7786301	. AKE I
			1	TBX7786303	AKEI
	4(C-3)	(F)			
	4 (C-3) 4 (C-3)	(G)	1	TBX7786304	AKEI
126	4(C-3)	(G) (H)			
126	4 (C-3) 4 (C-3) 4 (C-3)	(G) (H) A/C CORD	1	TBX7786304 TBX7786302	AKEI
126	4(C-3) 4(C-3) 4(C-3) 4(B-5) <u>/</u>	(G) (H) A/C CORD (A, C, D, E, F, G, H)	1	TBX7786304 TBX7786302 TSX7134	AKE I
126	4 (C-3) 4 (C-3) 4 (C-3) 4 (B-5) <u>/</u>	(G) (H) A/C CORD \((A,C,D,E,F,G,H)\)	1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F	AKEI
126	4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3)	(G) (H) A/C CORD \(\(\) (A, C, D, E, F, G, H\)	1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K	AKE I
	4 (C-3) 4 (C-3) 4 (C-3) 4 (B-5) <u>/</u>	(G) (H) A/C CORD \(\(\) (A, C, D, E, F, G, H) \(\) (B)	1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F	AKE I
126	4(C-3) 4(C-3) 4(C-3) 4(C-3) 4(B-5) <u>2</u> 4(B-5) <u>2</u>	(G) (H) A/C CORD (A, C, D, E, F, G, H) (A) (B) SPEAKER SPRING	1 1 1 1 1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K TSX7145	AKE I
130	4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3)	(G) (H) A/C CORD (A, C, D, E, F, G, H) (B) SPEAKER SPRING (A, B, C, D)	1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K	AKE I
	4(C-3) 4(C-3) 4(C-3) 4(B-5) \(\delta \) 4(B-5) \(\delta \) 4(B-5) \(\delta \)	(G) (H) A/C CORD (A, C, D, E, F, G, H) (A) (B) SPEAKER SPRING (A, B, C, D) TOP SHIELD PLATE ASS'Y	1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K TSX7145	AKE I AKE I AKE I
130	4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (B-5) \(\triangle \) 4 (B-5) \(\triangle \) 4 (A-5)	(G) (H) A/C CORD (A, C, D, E, F, G, H) (A, B) SPEAKER SPRING (A, B, C, D) TOP SHIELD PLATE ASS'Y (A, B, C, D)	1 1 1 1 1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K TSX7145 TES7368-1	AKE I AKE I AKE I
130	4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (B-5) 2 4 (B-5) 2 4 (A-5) 4 (H-6)	(G) (H) A/C CORD (A, C, D, E, F, G, H) (A, B, C, D) (A, B, C, D) (E, F, G, H)	1 1 1 1 1 1 1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K TSX7145 TES7368-1 TXFUC01134 TXFUC01204	AKE I AKE I AKE I AKE I
130	4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (B-5) \(\frac{1}{2} \) 4 (B-5) \(\frac{1}{2} \) 4 (A-5) 4 (H-6) 4 (H-6) 4 (G-6)	(G) (H) A/C CORD (A, C, D, E, F, G, H) (A, B) SPEAKER SPRING (A, B, C, D) TOP SHIELD PLATE ASS'Y (A, B, C, D) (E, F, G, H) POWER SUPPLY ASS'Y ANGLE	1 1 1 1 1 1 1 1 1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K TSX7145 TES7368-1 TXFUC01134 TXFUC01204 TUX77807	AKE I AKE I AKE I AKE I
130	4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (C-3) 4 (B-5) 2 4 (B-5) 2 4 (A-5) 4 (H-6)	(G) (H) A/C CORD (A, C, D, E, F, G, H) (A, B, C, D) (A, B, C, D) (E, F, G, H)	1 1 1 1 1 1 1 1	TBX7786304 TBX7786302 TSX7134 OR TSX7134-F OR TSX7134-K TSX7145 TES7368-1 TXFUC01134 TXFUC01204	AKE I AKE I AKE I

No.	Grid No.	Description	Pcs/ Set	Part No.	Remark
40	4(G-1)	SUPPORT ANGLE -L	1	VMAS2041	
49	F (1) (1)	VHF ANTENNA ADAPTOR	 	140000074	
50	5(H-4)	(A, B, C, D) VHF ROD ANTENNA	1	VSQS0974	
30	5 (H-2)	(AB)	1	TSA700009	AKEI
51	- 1 - 7	ANODE LEAD CLAMPER			
	4(E-10)	(E, F, G, H)	1	TMM15404-1	AKE
53	4 (H-8)	CLAMPER (4)	1	TMM7443-1	
57	4 (B-4)	OPERATION BUTTON (1) (A)	1	TBX7785802	AKEI
	4 (B-4)	(B,D)	1	TBX7785804	AKE
	4 (B-4)	(C)	1	TBX7785805	AKEI
58		OPERATION BUTTON (2)			
	4 (B-4)	(A)	1	TBX7785901	AKEI
	4 (B-4) 4 (B-4)	(B,D)	1 1	TBX7785902 TBX7785903	AKE I
69	4 (D-4)	PERMALLOY MAGNETIC STRIP	'	10/1/03/03	ANCI
-	4(D-7)	(E, F, G, H)	1	TSM10032-2	AKE
70		CONVERGENCE MAGNET			
	4(E-7)	(A, B, C, D)	1	TLC2042-2	
73	141 6	SPEAKER LEAD ASS'Y	-	VENDENDA	a' reng .
	4(A-6)	(A, B, C, D) (E, F, G, H)	1	VEKS5227 VEKS5228	AKE I
76	4 (A-5) 1 (B-2)	(E,F,G,H) SHEET	1	VEKS5228 VMFS0064	AKE
, 0	. (2 2)				
			-		
		SCREWS & WASHERS		· · · · · · · · · · · · · · · · · · ·	
		w madifield			
01	1	SCREW WITH WASHER	3	VHDS0356	
02	4	TAPPING SCREW 3X8	4	XTV3+8FR	AKE
03	1	ADJUST SCREW	3	VHDS0398	
04	4	SCREW 3X10	3	VHDS0286	
105	2	SCREW 2.6X10	2	VHDS0399 VHDS0402	
109	1	LOCK SCREW	2	VHDS0236	
110	1	SCREW 2.6X6	1	VHDS0403	
111	1	CUT WASHER	1	VMXS0664 **	
112	1	SCREW 2X8	1	XYM2+S8	
114	1	SCREW 2.6X5	3	XSN26+5	
115	2	SCREW 3X6 TAPPING SCREW 2,6X10	3 2	XSN3+6 XTN26+10G	
117	1	SCREW 2.6X12	1	XTN26+12G	
118	1,2	TAPPING SCREW 2X5	2	XTV2+5F	
119	4	TAPPING SCREW 2,6X8	2	VHDS0464	
120	1	THRUST SCREW UNIT	1	VXDS0031	
121	1	M3 NUT	. 1	VHNS0015	
122	2	POLY SLIDER WASHER 2	1 2	XWGV2D5G	
123 124	1, 2	SCREW WITH WASHER 2.6X6	3 4	VMXS0336 ** XYC26+CF6J	
126	1,2	RUBBER WASHER	+ -	X102010100	
	4	(A, B, C, D)	4	TMM16517	AKE
	4	(E, F, G, H)	4	TMM77532	AKE
27	2	SCREW WITH WASHER 3X4	2	XYN3+C4	
128	1	SCREW WITH WASHER 2.6X10	1	XYA26+SF10J	
129	2	SCREW 2.6X7.5 TAPPING SCREW 2.6X6	1	VHDS0423 XTV26+6FFZJ	
131	1, 2	TAPPING SCREW 2.6X6	4	XTV26+6FJ	
134	3	TAPPING SCREW 2.6X8	1	XTB26+8G	
35	2	TAPPING SCREW WITH WASHER	3	XYEV0004J	
136	1	POLY WASHER	1	XWE3VW	
140	1	SCREW WITH WASHER 2.6X6	1	XYN26+F6FZ	
142	2	TAPPING SCREW 2X5 TAPPING SCREW 4X12	1	XTV2+5GFZ	
+43	4	(A, B, C, D)	2	XTV4+12A	AKE
	4	(E, F, G, H)	7	XTV4+12A	AKE
144	1	CUT WASHER	1	VMXS0722 **	
145	4	SCREW WITH WASHER 5X30	4	THT1056	AKE
46	4	TAPPING SCREW 4X16	9	XTV4+16A	AKE
450	4	TAPPING SCREW 3X6	2	XTV3+6F	
451 455	1	TAPPING SCREW 2,6X8 POLY SLIDER WASHER 3	1 4	VHDS0465 XWGV3Z54G	AKE
457	1	TAPPING SCREW 3X12	+ 4	A110132340	
	4	(A, B, C, D)	2	VHDS0445	AKE
	4	(E, F, G, H)	2	XTV3+12GR	AKE

No.	Grid No.		[Descriptio	n		Pcs/ Set	Р	art No.	R	emark
	4	TAPPING	SC	REW 3X8			1/	XTV	3+8F		
	4	SCREW			~~		1		3+FG10FR		
-	4		SC	REW 4X12			2	XTN	4+12A	St. B.	
\rightarrow	4	SCREW	_				1	XTN	4+15AR		
	4	SCREW	_				80° 1 .	VHD	S0416	1 1	
64	1	TAPPING	SC	REW 1.6X	3		1	XQN	16+CF3		
65	2	POLY SL	IDE	R WASHER			2	XWG	V26A5	/6	
68	4	TAPPIN	3 SC	REW 4X10			1	XTV.	4+10AFN	Ŀ	AKEI
69	4	TAPPIN	3 SC	REW 3X10			2	VHD	S0444		AKE
70	4.	TAPPIN	SC	REW 3X10			2	XTV:	3+10G	1	AKEI
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2. ELECTRICAL REPLACEMENT PARTS LIST

USE ONLY ORIGINAL VIDEO REPLACEMENT PARTS : To maintain original FUNCTION and RELIABILITY of repaired units, use only ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in the parts list section of the Service Manual.

Special Note:
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "Electrostatically Sensitive (ES) Devices" section of this service manual.

electrostatically sensitive and therefore require the special handling techniques described under the "Electrostatically Sensitive(ES) Devices" section of this service manual.

Note:

1. Be sure to make your orders of replacement parts according to this list.

2. IMPORTANT SAFETY NOTICE
Components identified by the sign Δ have special characteristics important for safety.
When replacing any of these components, use only the specified parts.

3. Unless otherwise specified;
All resistors are in OHMS(Ω), ¼W, ±5%, carbon, K=1,000 Ω, M=1,000K Ω.
All capacitors are in MICROFARADS(μF), P=μμf, ±10%.
All coils are in MICROHENRIES(μH), M=10³ μH, ±10%.
4. C.B.A.: Circuit Board.
5. P.C.B.: Printed Circuit Board.
6. E.S.D.: Electrostatically Sensitive Devices.
7. ITEM NUMBERS WITH CAPITAL LETTER E Item numbers with capital letter (Example: E1,E2,···) in the Ref. No. column are shown in the exploded views.
The E item numbers are also printed on the same page at the top of the column.

8. The parts with "Δ are assembly parts or units.
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COMPARISON CHART OF MODELS & MARKS

MODEL	MARK	MODEL	MARK	MODEL	MARK
PV-M1324	Α	PV-M1324W	В	VV134	C
VV134₩	D	PV-M2024	Ε	VV204	F
VV204\	G	PV-M2044	Н		

(F1, F2, F3, F4, F5, E6, E7, E10, E81)

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
			PRINTED CIRCUIT BOARD AS	SEMB	LY
El		VEPS02223A1	MAIN C. B. A.	1	E. S. D. (RTL)
		(A, B, C, D)	-		
E1		VEPS02223B1	MAIN C. B. A.		E. S. D. (RTL)
		(E, F, G)	-		
E1		VEPS02223C1	MAIN C. B. A.		E. S. D. (RTL)
		(H)	•.		
E10		VEPS03125C2	CCV C. B. A.	1	E. S. D. (RTL)
E2		VEPS01039A1	POWER SUPPLY ASS'Y	1	(RTL)
E3		VEPS07571A1	OPERATION I C. B. A.	1	(RTL)
		(A, B, C, D)	4		
E3		VEPS07573A1	OPERATION I C. B. A.		(RTL)
		(E, F, G, H)			
E4	E	VEPS07572A1	OPERATION II C. B. A.	1	(RTL)
		(A, B, C, D)			
E4		VEPS07574A1	OPERATION II C. B. A.		(RTL)
		(E, F, G, H)			
E81		VEPS04117A1	AUDIO/VIDEO JACK C. B. A.	1	(RTL)
		(E, F, G, H)			
E5	-	VEPS02178A1	CAPSTAN MOTOR DRIVE C. B. A.	1	(RTL)
E6		VEPS0563CA1	HEAD AMP ASS'Y	1	(RTL)
	-	(A, B, C, D, E, F, G)			
E6		VEPS0564CA1	HEAD AMP ASS'Y	1	(RTL)
		(H)			
E7 .	13	TNP71920CC	TV MAIN C. B. A.	1	(RTL) AKE I
· · · · · · · · · · · · · · · · · · ·		(A, B, C, D)			
E7		TNP71922CC	TV MAIN.C. B. A.	_	(RTL) AKE I
		(E, F, G, H)			

(E8, E9, E29, E30)

(E8, E9, E29,	E3(6 4 6	Pcs/	
Ref. No.	_	Part No.	Part Name & Description	Set	Remarks
E8	A	TNP73135AA	CRT C. B. A.	1	(RTL) AKEI
CO .	-	(A, B, C, D)	COT C D A		(DTI) AVE I
E8	•	TNP73139AA	CRT C. B. A.		(RTL)AKEI
E9	•	(E, F, G, H) TNP73136BB	TV POWER C. B. A.	1	(RTL) AKEI
	-	(A, B, C, D)	TV TOTAL OF STA	<u>'</u> -	(ITE/IKE)
E9	A	TNP73140BB	TV POWER C. B. A.		(RTL) AKE I
		(E, F, G, H)			
			MAIN C.B.A.		
			MARY C.B.A.		
			INTEGRATED CIRCUITS		
IC3001		AN3458FBP	IC BIPOLAR LINEAR VIDEO/AUDIO	1	
			PROCESS		
IC3201		MN3870S	IC MOS LOGIC CCD 1H DELAY	1	E. S. D.
IC3301	_	LC7472NM9056	IC MOS LOGIC CHARACTER	1	E. S. D.
IC4151	_	AN5265	GENERATOR IC BIPOLAR LINEAR TV SOUND	1	
104131		MN3203	OUT		
IC6001		MN6750245V5Y	IC MOS LOGIC SYSTEM CTL/SERVO	1	E. S. D.
IC6003		XRA6418N	IC BIPOLAR LINEAR LOADING	1	2,0,0,
			MOTOR DRIVE		
IC6004		VEKS5202	REEL SENSOR UNIT	1	
IC6201		AN1358S	IC BIPOLAR LINEAR OP AMP	1	
IC7501	_	MN187244V9G	IC MOS LOGIC TIMER/DISPLAY	1	E. S. D.
107500	_	MILORO I	DRIVE	,	500
IC7502 IC7505		MN1280-L UPD6326C	IC MOS LOGIC RESET SIGNAL OUT IC MOS LOGIC D/A CONVERTER	1	E. S. D. E. S. D.
.5,000		5, 500200	TO HIGH EAST DIA CONVENTER		L. V. D.
			TRANSISTORS		
01201		2SC3852		1	
		OR 2SD1776 (P, Q)			
01202	Δ	OR 2SD2375(P, Q)	CULD	-	
01202 03001, 3002	-	2SD601 (0) 2SD601 (R)	CHIP CHIP	2	
03001, 3002	-	2SB709 (R)	CHIP	1	
		(A, B, C, D, E, F, G)		<u> </u>	
03004		UN2113	CHIP	1	
03005		2SB709(R)	CHIP	1	
03301		2SD601 (R)	CHIP	1	
03601		2SB709 (R)	CHIP	. 1	
04003		(H)	OULD	<u> </u>	
Q4001 Q4002, 4003	-	2SB709A(Q) 2SD601A(R)	CHIP	2	
04101		2SD601A(R) 2SD601 (Q)	CHIP	1	
Q6001 (E29)		VEKS5200	PHOTO SENSOR UNIT	1	
Q6002 (E29)		VEKS5200	PHOTO SENSOR UNIT	1	
Q6003		2SD601 (Q)	CHIP	1	
Q6004		2SB709 (Q)	CHIP	1	
06005		UN2212	CHIP	1	
Q6006		2SB709 (Q)	CHIP	1	
06007		RN4601	COMPLEX COMPONENT SI NPN/PNP CHIP	1	
Q6201		2SB709 (Q)	CHIP	1	
07002		2SD601 (0)	CHIP	1	
07502, 7503		2SD601 (0)	CHIP	2	
			DIODES		
D1201		MA4100N	ZENER 10V	1	
D1202-1204 D3001-3005		WG713A		3 -	
D3001-3005 D3006	-	MA165		5	
55000		(A, B, C, D, E, F, G)		1	
D3007, 3008		MA4091-M	ZENER 9.1V	2	
D3602		MA4130-M	ZENER 13V	1	
		(H)			
		MA165		1	
D3603		(H)			
	Ц			1	
D3603		WG713A	ACUAAN LED HILLE		
D4001 D6001 (E30)		VEKS5201	SENSOR LED UNIT	1	
D4001 D6001 (E30) D6002, 6003		VEKS5201 WG713A	SENSOR LED UNIT	2	
D4001 D6001 (E30) D6002, 6003 D6201-6204		VEKS5201 WG713A WG713A	SENSOR LED UNIT	2	
D4001 D6001 (E30) D6002, 6003		VEKS5201 WG713A WG713A WG713A	SENSOR LED UNIT	2	
D4001 D6001 (E30) D6002, 6003 D6201-6204		VEKS5201 WG713A WG713A	SENSOR LED UNIT	2	
D4001 D6001 (E30) D6002, 6003 D6201-6204 D6205		VEKS5201 WG713A WG713A WG713A (H)	SENSOR LED UNIT ZENER 16V	2 4 1	

Ref. No.		Part No.		& Description	Pcs/ Set	Remarks
07005		MA4062-H	ZENER	6. 2V	. 1	
7534		MA4051-M	ZENER	5.10	11:	775 79 7
	_	1 1 1 1 1		garasgir es	4,7557	1990 1
				a second or exit	1.5	
21001	_	ERD21LLJ472	CHIP	1/0W A 7V	254 i s	3001 - 020 045 - 020
R1201	_		CHIP	1/8W 4.7K	a 1	6-8-50 C C C C C C C C C C C C C C C C C C C
R1202 R1204	-	ERDS2TJ153	.:	15K	1	
		ERDS2TJ153	FUSE	1/2W 1	23 T	
R1209 R1210	Δ	ER012HJ1R0P ERDS2TJ222	FUSE	2. 2K	1	- 4:
	-		VARIABLE	2. ZK	1	
R3003	-	EVNDXAA03B13 ERJ6GEYJ102V	MGF CHIP	1/10W 1K	a 44 1 -3	2 - 2
	-	ERJ6GEYJ103V	MGF CHIP	1/10W 10K	2	1077 1175
R3005, 3006 R3007	-		MGF CHIP	1/10W 2.2K	1	1077 C. 1077 1078 C. 1077
	-	ERJ6GEYJ222V ERJ6GEYJ103V	MGF CHIP	1/10W 10K	200 1 20	A35 1.40
R3008 R3009	⊢	ERJ6GEYJ222V	MGF CHIP	1/10W 2.2K	1	2014 1000
	H	EVNDXAA03B24	VARIABLE	20K	2	
R3010, 3011 R3012	Н	ERJ6GEYJ182V	MGF CHIP	1/10W 1.8K	- 2	(i) (C):
R3013	H	ERJ6GEYJ151V	MGF CHIP	1/10W 150	1	
R3014	-	EVNDXAA03B24	VARIABLE	20K	21110	
R3015	-	EVNDXAA03B13	VARIABLE	16	1	10.0 km/gm
R3016	H	ERJ6GEYJ473V	MGF CHIP	1/10W 47K	3.1	109- T 1000
R3017	-	ERJ6GEYJ394V	MGF CHIP	1/10W 390K	1	10 1 10 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1
R3017	-	ERJ6GEYJ473V	MGF CHIP	1/10W 390K	7-1	
R3018, 3020	-	ERJ6GEYJ223V	MGF CHIP	1/10W 22K	2	200
R3019, 3020		ERJ6GEYJ223V	MGF CHIP	1/10W 390	1	1084 - 109
	-		MGF CHIP			
R3022, 3023 R3024	-	ERJ6GEYJ102V ERJ6GEYJ391V	MGF CHIP	1/10W 1K	1	rest to the page
R3024 R3025	-	ERJ6GEYJ221V	MGF CHIP	1/10W 390	1	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
K30Z3	-		700 - 200	1/10# 220	3117	10 v 12 v 12 v 12 v 12 v 12 v 12 v 12 v
	-	(A, B, C, D, E, F, G)	MGF CHIP		1 2 M	3.5
	-	ERJ6GEYJ391V	MGF CHIP	1/10W 390	-	
02026	-	(/	MGF CHIP	1/10W 820K	1	1
R3026	-	ERJ6GEYJ824V			1	
3027	-	ERJ6GEYJ332V	MGF CHIP			
3028	-	ERJ6GEYJ103V	MGF CHIP	1/10W 10K	1	
R3029 R3030	-	ERJ6GEYJ474V ERJ6GEYJ155V	MGF CHIP	1/10W 470K	201 201	
R3031	-	ERJ6GEYJ391V	MGF CHIP	1/10W 390	1	
R3032	-	ERJ6GEYJ392V	MGF CHIP	1/10W 3.9K	1	
R3033	-	ERJ6GEYJ472V	MGF CHIP	1/10W 4.7K	1	184 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	-		MGF CHIP		1	
R3034	-	EKOOGETOTZOV	MGF CHIP	1/10W 12K	_	
R3035 R3036	-	ERJ6GEYJ822V	MGF CHIP	1/10W 0.2K	1	twit i vent
R3037	\vdash	ERJ6GEYJ273V	CHIP		-201 a	italia in incidenti
R3038, 3039	-	ERD21LLJ273 ERJ6GEYJ152V	MGF CHIP	1/8W 27K	2	gys Syri
R3040	-		MGF CHIP	1/10W 1.3K	111	
R3041	\vdash	Litobolito	VARIABLE	20K	Sast V	271
R3042	-	211101111111111111111111111111111111111	VARTADLE	39K	39 1 1	
K3U4Z	H		- 450 - 450 -	0010	+3 (14 +	
22042	-	(A, B, C, D, E, F, G)	MOT OUR	1/10W 39K	12 TO 1	(CONT.) ENGLIS
R3043	-		MGF CHIP	1/10W 39K		031 ,
02044	\vdash	(A, B, C, D, E, F, G) ERJ6GEYJ225V		1/10W 2.2M	##### ################################	8081 WAS 16950 6081 UNIO
R3044	┞		MGF CHIP			
R3045, 3046	├-	ERJ6GEYJ103V	MGF CHIP	1,7 10.11		
R3047	-	ERJ6GEYJ562V	MGF CHIP	1/10W 5.6K		1014 AST
R3048 R3049	-	ERJ6GEYJ472V	MGF CHIP	.,	_	
	⊢	ERJ6GEYJ122V	MGF CHIP	.,,		STORY OF STORY
R3050	-	ERJ6GEYG472V		-2% 1/10W 4.7K		037 SEC .7087
R3051	\vdash	ERJ6GEYJ223V	MGF CHIP	1/10W 22K	_	01 - 17 ,000.80
R3052	-	ERD21LLJ103	CHIP	1/8W 10K		6. O.S.
00000 0000	-	(A, B, C, D, E, F, G)	NOT CHID	4040 9050 11410W 2040	-	04 (980)
R3053, 3054	-	ERJ6GEYJ333V	MGF CHIP	1/10W 33K		1377 A7682
R3055	-	ERJ6GEYJ561V	MGF CHIP	1/10W 560		2005 2000 E
R3056	-	ERDS2TJ101	NOT OUT		39. 1 s	(C) (C)
R3057	-	ERJ6GEYJ331V	MGF CHIP	1/10W 330	E.1	[33] 168E)
R3058	-	ERJ6GEYJ824V	MGF CHIP	1/10W 820K	1	
R3059	-	ERJ6GEYJ183V	MGF CHIP	1/10W 18K		387 3787
R3060	-	ERJ6GEYJ103V	MGF CHIP	1/10W 10K	1	an i
00000	-	(A, B, C, D, E, F, G)	HOT OUT	463b	2 3 1 1	091 John
R3061	-	ERJ6GEYJ271V		1/10W 270	*11	O. 10a.
R3062	1	ERJ6GEYJ683V	MGF CHIP	1/10W 68K		9.8.
R3063	-	ERJ6GEYJ103V	MGF CHIP	1/10W #10K		ioni vaci
R3066	L	ERJ6GEYJ822V	MGF CHIP	1/10W 8.2K		04. n#1
R3201	Ļ	ERJ6GEYJ821V	MGF CHIP		1117	531 1753
R3202	•				180 1 16	1900
R3203		ERJ6GEYJ225V	MGF CHIP	1/10W 2.2M	_	J. 430.
R3301	L	ERJ6GEYJ102V	MGF CHIP	1/10W 1K	X*13	1945
R3302		ERJ6GEYJ101V	MGF CHIP	1/10W 100	- 1	2.1
R3303	L	ERJ6GEYJ1 03V	MGF CHIP	1/10W 10K	381:1	, t
R3304-3306	+	ERJ6GEYJ222V	MGF CHIP	1/10W 2.2K	3	
R3307, 3308	1	ERJ6GEYJ563V	MGF CHIP	1/10W 56K	2	F 4

Ref. No.		Part No.	Part	Name & Description	n	Pcs/ Set	Remarks
R3601		ERJ6GEYJ331V	MGF CHIP	1/10W	330	1 1	en e
R3602		ERJ6GEYJ271V	MGF CHIP	1/10W	270	1	ar girtar o
R3603		(H) ERJ6GEYJ680V	MGF CHIP	1/10W	68	1.1 1.42	1.73 × 1.
R3604		(H) ERJ6GEY0R00V	MGF CHIP	1/10W	.0	5.331 5.3 1 8	re. j
		(A, B, C, D, E, F, G)		144		0.331.3	asii us
	H	ERD21LLJ183	CHIP	1/8₩	18K		gate /
R4001		ERD21LLJ103	CHIP	1/8W	10X	. 1	
R4002		ERD21LLJ334	CHIP	1/8W	330K	. 1	js - 45.
R4003	L	ERD21LLJ221	CHIP	1/8W	220	. 1	977 2
R4004 R4005	\vdash	ERD21LLJ333 ERD21LLJ225	CHIP	1/8W	33K	1	Maria
R4006	\vdash	ERD21LLJ681	CHIP	1/8W	680	1	1077
R4007	\vdash	ERD21LLJ821	CHIP	1/8W	820	1	al a
R4008	\vdash	ERJ6GEYG183Z	MGF CHIP	+-2% 1/10W	18K	1	1915 A.P.
R4009		ERD21LLJ473	CHIP	1/8W	47K	1	2.7
R4010	•	ERD21LL0 X45	CHIP	1/8W	: 0	11	4:
R4011		ERD21LLJ682	CHIP	1/8W	6. 8K	. 1	497
R4012		ERD21LLJ223	CHIP	: <1/8W	22K	:10	981 E 1
R4013	L	ERD21LLJ473	CHIP	1/8W	47K	. 1	j. 150
R4014, 4015	L	ERD21LLJ472	CHIP	1/8W	4.7K	2	\$ t
R4016		ERD21LLJ473	CHIP	1/8W	47K	at 10	BA 0.00
R4018	-	ERD21LLJ562	CHIP	1/8W	5. 6K	J.4.8	\$ · ·
R4019	-	ERD21LLJ123 ERDS2TJ473	CHIP	1/8W	12K	1	985 15 25 1 5 3 4 25 25 1
R4020, 4021 R4030	-	ERD21LLJ393	CHIP	1/8W	47K	1	1 10
R4031	-	ERD21LLJ561	CHIP	1/8W	560	1	Y
R4101	-	ERD21LLJ154	CHIP	1/8W	150K	1	6.7
R4102	-	ERJ6GEYG473Z	MGF CHIP		47K	1	
R4103		ERD21LLJ153	CHIP	1/8W	15K	.1.	giller of the
R4151		ERD21LLJ561	CHIP	1/8W	560	1	
R4152		ERDS2TJ221			220	1	
R4153		ERD21LLJ823	CHIP	1/8W	82K	1	Here year
R4155		ERD21LLJ392	CHIP	1/8W	3. 9K	1	
		(A, B, C, D)					1.5
		ERD21LLJ182	CHIP	1/8W	1.8K	,	1.1. 19
		(E, F, G, H)		1 10 1	- 1		148 148
R4156	Δ	ERX1SJ9R1P	METAL OX	IDE 1W	9. 1	:10	AT - AT
R4157, 4158		ERD21LLJ103	CHIP	1/8 W	10K	. 2	454 F. 174
R4159	L	ERDS2TJ100		\$ page 1	10	11	With the William
R4160		ERD21LLJ561	CHIP	1/8W	560	1	34 TT 1 4 FT 145 FT
	L	(A, B, C, D)		3,101	194	2715	MATERIAL VIEW
		ERD21LLJ391	CHIP	1/8W	390		A
24101	_	(E, F, G, H)	01110	13(16)	343	15	383 N2
34161	_	ERD21LLJ392	CHIP	1/8W	3. 9K	113	第 4 12
R6002	-	ERD21LLJ223	CHIP	1/8W	22K	1	State Control
R6003-6005	-	ERD21LLJ563	CHIP	1/8W	56K	3	340 1 1500
R6006-6008		ER021LLJ102	CHIP	1/8W	1K	3	6/15 1 36% (4.47 1 14.47
	-		CHIP	1/8W	2. 2K	1	
R6010, 6011 R6015	H		CHIP		220	2	1964 - 12 1964 - 1964
	\vdash			1/8W	3, 3K		
R6018, 6019	-	ERD21LLJ102 ERD21LLJ102	CHIP	1/8W 1/8W	1 K	1	149.0 124.0 1244 138.0 138.0 1244
R6022, 6023	-	ERD21LLJ221	CHIP	1/8W	220	2	NO
36025	\vdash	ERD21LLJ272	CHIP	1/8W	2.7K	1	\$245 A
R6028	-	ERD21LLJ223	CHIP	1/8W	22K	- 1	ers Russ de
R6028	-	ERD21LLJ272	CHIP	1/8W	2.7K	2013 2018	orus er ofist
R6032		ERD21LLJ224	CHIP	1/8W	220K	3410	1973 : 4V. 197 1973 : 4V. 197
36033, 6034	\vdash	ERD21LLJ153	CHIP	1/8W	15K	2	775 F 4 6
		(H) AT W	3111	77.25	201		100
R6035	-	ERD21LLJ223	CHIP	1/8W	22K	1	
		(H) 681		.,-11	15	- 71%	2002
R6036-6049	-	ERD21LLJ223	CHIP	1/8W	22K	14	441 . 188
R6050		ERD21LLJ223	CHIP	1/8W	22K	2 / 1 %	527 - 437 182
	Г	(A, B, C, D, E, F, G)		1.11	181	, 141,	Ad 1941 Jak
R6051		ERD21LLJ223	CHIP	1/8W	22K	U 1 3	gn nan
R6052		ERD21LLJ103	CHIP	1/8W	10K	10	44); * * *
R6053		ERD21LLJ102	CHIP	. 1/8W	1K	3.13	Mar treat two
R6054		ERD21LLJ103	CHIP	1/8W	10K	1	
R6055		ERD21LLJ102	CHIP	1/8W	1K	1	
R6056, 6057		ERD21LLJ103		00004001/8W	10K	2	
R6058		ERD21LLJ683	CHIP	1/8W	68K	4i 1 5	.
R6059		ERD21LLJ223	CHIP	1/8W	22K	अव	75
R6062		ERD21LLJ473	CHIP	1/8W	47K	J14	tw. 7
R6063		ERD21LLJ683	CHIP		68K	1	17 750
R6066		ERDS2TJ821	67		820	1	7. A
	-	ERDS2TJ471			470	3	1 7.00

Ref. No.		Part No.	Part Na	me & Descr	iptic	on	Pcs/ Set	Remarks	Ref. No.	Pa
R6072		ERD21LLJ102	CHIP		1/8W	1K	1		C3005	ECUV1H
R6073	_	ERDS2TJ560	LIETH OVID		101	56 12	1		C3007, 3008	ECEA1E
R6075, 6076 R6077	Δ	ERG1SJ120E ERD21LLJ822	CHIP		1W 1/8W	8. 2K	2		C3009 C3010	ECEA1H ECUV1H
R6201	_	EVNDXAA03B15	VARIABLE		1/011	100K	1		C3011	ECEA1H
R6202		ERD21LLJ473	CHIP		1/8W	47K	1		C3012	ECUV1C
R6203		ERD21LLJ392	CHIP		1/8W	3. 9K	- 1		C3013	ECEA0J.
R6204		ERD21LLJ222	CHIP		1/8W	2. 2K	1		C3015	ECEA1H
R6205		ERD21LLJ394	CHIP		1/8W	390K	1	<u> </u>	C3016	ECEA1H
R6206	_	ERD21LLJ123	CHIP		1/8₩	12K 82K	1		C3017 C3018	ECUV1H ECUV1E
R6207 R6208	Н	ERD21LLJ823 ERD21LLJ394	CHIP		1/8W	390K	1		C3019	ECEA1H
R6209	Н	ERD21LLJ124	CHIP		1/8W	120K	1		C3021	ECUV1H
R6210		ERD21LLJ103	CHIP		1/8W	10K	1		C3022	ECEA1H
R6211		ERD21LLJ223	CHIP		1/8W	22K	1		C3023	ECUV1H
R6212		ERD21LLJ103	CHIP		1/8W	10K	1		C3024	ECEA10
R6213		ERD21LLJ472	CHIP		1/8₩	4. 7K	1		C3025	ECEA1H
R6214	-	ERD21LLJ154	CHIP		1/8W	150K	1		C3026 C3027	ECUV1H ECUV1E
R6215	H	ERD21LLJ473 ERD21LLJ224	CHIP		1/8W	47K 220K	.1		C3027	ECUV1H
R6217	\vdash	ERD21LLJ221	CHIP		1/8₩	220	1		C3029	ECUV1H
R6218		ERD21LLJ472	CHIP		1/8W	4. 7K	1		C3031, 3032	ECUV1H
R6220		ERD21LLJ682	CHIP		1/8W	6. 8K	1		C3033	ECUV1C
R6221		ERD21LLJ222	CHIP		1/8W	2. 2K	1		C3034	ECUV1H
R6222		ERD21LLJ472	CHIP		1/8W	4. 7K	1		C3035	ECUV1E
R6223	_	ERD21LLJ225	CHIP		1/8W	2. 2M	1		C3036	ECUV1H
R6224	-	ERD21LLJ221 ERD21LLJ103	CHIP		1/8W	220 10K	1		C3037 C3038	ECUV1H ECEA0J
R6225 R6226	-	ERD21LLJ103	CHIP		1/8W	1K	1		C3039, 3040	ECUV1E
R6228	\vdash	ERD21LLJ274	CHIP		1/8W	270K	1		C3041	ECUV1H
R6229		ERD21LLJ223	CHIP		1/8W	22K	1		C3043	ECUV1H
R6231		ERD21LLJ472	CHIP		1/8W	4.7K	1		C3045	ECUV1H
R6232, 6233		ERD21LLJ103	CHIP		1/8W	10K	2		C3046	ECEA1H
R6234	_	ERD21LLJ222	CHIP		1/8W	2. 2K	1		C3047	ECUV1C
R6235	-	ERD21LLJ152 ERD21LLJ102	CHIP		1/8W	1.5K	1		C3048 C3049	ECUV1H ECEA1H
R6238	-	ERD21LLJ102	CHIP		1/8₩	1 K	1		C3050	ECUV1E
R6260		ERD21LLJ222	CHIP		1/8W	2. 2K	1		C3051	ECEA0J
R7001	•	ERD21LL0	CHIP		1/8W	0	1		C3052	ECUV1E
R7002		ERD21LLJ271	CHIP		1/8W	270	1		C3053	ECUV1H
R7003		ERDS2TJ471				470	1		C3054	ECUV1H
R7501-7503	_	ERD21LLJ101	CHIP		1/8W	100	3		2025	(H)
R7504-7507	_	ERD21LLJ102	CHIP		1/8W	1 K	2		C3055	ECEA1H ECEA1C
R7509, 7510 R7512-7519	-	ERD21LLJ102 ERD21LLJ223	CHIP		1/8W	22K	8		C3057	ECUV1H
R7520-7522	-	ERD21LLJ102	CHIP		1/8W	1K	3		C3201, 3202	ECUVIE
R7525		ERD21LLJ222	CHIP		1/8₩	2. 2K	1		C3203	ECUV1H
R7526	Г	ERD21LLJ563	CHIP		1/8W	56K	1		C3204	ECUV1H
R7527		ERD21LLJ222	CHIP		1/8W	2. 2K	1		C3205	ECUV1H
R7529	L	ERD21LLJ563	CHIP		1/8W	56K	_		C3206	ECUV1E
R7530	L	ERD21LLJ222	CHIP		1/8₩	2. 2K	-		C3207, 3208	ECUV1H ECUV1E
R7531 R7535	-	ERD21LLJ102 ERD21LLJ102	CHIP		1/8W	1K	_		C3209 C3210	ECEATH
R7539	-	ERD21LLJ334	CHIP		1/8W	330K	1		C3211	ECUV1H
R7541		ERDS2TJ331	-		.,	330			C3212	ECEA0J
R7542, 7543		ERDS2TJ181				180	2		C3301	ECUV1E
R7549		ERD21LLJ332	CHIP		1/8W	3. 3K	1		C3302, 3303	ECUV1H
R7550	L	ERD21LLJ104	CHIP		1/8W	100K			C3304, 3305	ECUV1H
R7551	L	ERD21LLJ223	CHIP		1/8W	22K	1		C3307	ECUV1H
R7557	1	ERD21LLJ102	CHIP		1/8W	1K	-		C3308	ECUV1H
R7565, 7566 R7567-7569	-	ERD21LLJ102 ERD21LLJ682	CHIP		1/8W	1K 6. 8K			C3309 C3310	ECUV1H ECUV1H
R7570	+	ERD21LLJ103	CHIP		1/8₩	10K	-		C3311	ECEA0J
R7573-7575	•		CHIP		1/8W	0	_		C3603	ECUV1H
R7579	Ī	ERDS2TJ181				180	1			(H)
R7580		ERD21LLJ223	CHIP		1/8₩	22K	1		C3604	ECAOJM
R7581-7584		ERD21LLJ563	CHIP		1/8W	56K	_			(H)
R7585, 7586	L	ERD21LLJ183	CHIP		1/8W	18K	-		C4001	ECUV1E
R7587	-	ERDS2TJ821	CHIE		1 /00	820	-		C4002	ECST1C
R7591-7593	+	ERD21LLJ103	CHIP		1/8W	10K 56K			C4003 C4004	ECUZ1H ECUZ1H
R7597, 7598	\vdash	ERD21LLJ563	CHIP		1/01	JOK	- 4		C4004 C4005	ECEA0J
	+		+				 		C4006	ECUV1H
	1		CAPACITO	ORS					C4007	ECEA10
C1201	Т	ECEA1HKAR47	ELECTROLYT		50V	0.47	1		C4008	ECEA0J
C1202		ECEA1CKA100	ELECTROLYT		167	10	-		C4009	ECEA10
C3001	L	ECEA0JKA221	ELECTROLYT		6. 3V	220			C4010	ECUV1E
C3002	L	ECUV1E104ZFN	C CHIP	+80%-20%		0.1	+		C4011	ECUZ1H
C3003	-	ECUV1H103ZFN	C CHIP	+80%-20%		0.01	+		C4012	ECEA1H
C3004	1	ECUV1H680JCN	C CHIP	+-5%	50V	68P	1		C4013	ECEAOJ

Ref. No.	Part No.	Part Name & Desc	ription	Pcs/ Set	Remarks
C3005	ECUV1H330JCN	C CHIP +-5%	50V 33P	1	
C3005 C3007, 3008	ECEA1EKA4R7		25V 4.7	2	
C3009	ECEA1HKAR47	ELECTROLYTIC	50V 0.47	1	
C3010	ECUV1H181JCN	C CHIP +-5%	50V 180P	1	
C3011	ECEA1HKAR47	ELECTROLYTIC	50V 0.47	1	
C3012	ECUV1C224ZFN	C CHIP +80%-20%	16V 0.22	1	
C3013	ECEA0JKA221	ELECTROLYTIC	6. 3V 220	1	
C3015	ECEA1HKA2R2	ELECTROLYTIC	50V 2.2	1	
C3016	ECEA1HKAR22	ELECTROLYTIC	50V 0.22	1	
C3017	ECUV1H820JCN	C CHIP +-5%	50V 82P	. 1	
C3018	ECUV1E104ZFN	C CHIP +80%-20%	25V 0.1	1	
C3019	ECEA1HKA010	ELECTROLYTIC	50V 1	1	
C3021	ECUV1H103ZFN	C CHIP +80%-20%		1	
C3022	ECEA1HKA2R2	ELECTROLYTIC	50V 2.2	1	
C3023	ECUV1H822KBN	C CHIP	50V 0.0082	1	
C3024	ECEA1CKA100	ELECTROLYTIC	16V 10	1	
C3025	ECEA1HKA0R1	ELECTROLYTIC	50V 0.1	1	
C3026	ECUV1H680JCN	C CHIP +-5%	50V 68P	1	
C3027	ECUV1E104ZFN	C CHIP +80%-20%		1	
C3028	ECUV1H102KBN	C CHIP	50V 0.001	1	
C3029	ECUV1H332KBN	C CHIP	50V 0.0033	1	
C3031, 3032	ECUV1H103ZFN	C CHIP +80%-20%		2	
C3033	ECUV1C474ZFN	C CHIP +80%-20%	16V 0. 47 50V 27P	1	
C3034 C3035	ECUV1H270JCN ECUV1E104ZFN	C CHIP +-5%		1	
C3035	ECUV1H561JCN	C CHIP +80%-20%	50V 560P	1	
C3036	ECUVIH281JCN ECUVIH220JCN	C CHIP +-5%	50V 560P	1	
C3037	ECEA0JKA221	ELECTROLYTIC	6. 3V 22P	1	
C3039, 3040	ECUVIE104ZFN	C CHIP +80%-20%		2	
C3041	ECUV1H103ZFN	C CHIP +80%-20%	· · · · · · · · · · · · · · · · · · ·	1	
C3043	ECUV1H103ZFN	C CHIP +80%-20%		1	
C3045	ECUV1H103ZFN	C CHIP +80%-20%		1	
C3046	ECEA1HKA3R3	ELECTROLYTIC	50V 3.3	1	
C3047	ECUV1C474ZFN	C CHIP +80%-20%		1	
C3048	ECUV1H392K8N	C CHIP	50V 0.0039	1	
C3049	ECEA1HKA2R2	ELECTROLYTIC	50V 2.2	1	
C3050	ECUV1E104ZFN	C CHIP +80%-20%		1	
C3051	ECEA0JKA221	ELECTROLYTIC	6. 3V 220	1	
C3052	ECUV1E104ZFN	C CHIP +80%-20%	25V 0.1	1	
C3053	ECUV1H150JCN	C CHIP +-5%	50V 15P	1	
C3054	ECUV1H103ZFN	C CHIP +80%-20%	50V 0.01	1	
	(H)				
C3055	ECEA1HKA2R2	ELECTROLYTIC	50V 2.2	1	
C3056	ECEA1CKA220	ELECTROLYTIC	16V 22	1	
C3057	ECUV1H390JCN	C CHIP +-5%	50V 39P	1	
C3201, 3202	ECUV1E104ZFN	C CHIP +80%-20%		2	
C3203	ECUV1H472KBN	C CHIP	50V 0.0047	1	
C3204	ECUV1H103ZFN	C CHIP +80%-20%		1	
C3205	ECUV1H102KBN	C CHIP	50V 0.001	1	`
C3206	ECUV1E104ZFN	C CHIP +80%-20%			
C3207, 3208	ECUV1H103ZFN	C CHIP +80%-20%			
C3209	ECUV1E104ZFN	C CHIP +80%-20%			
C3210	ECEA1HKA010	ELECTROLYTIC	50V 1	_	
C3211	ECUV1H103ZFN	C CHIP +80%-20%			
C3212 C3301	ECEA0JKA221 ECUV1E104ZFN	C CHIP +80%-20%			
C3302, 3303	ECUV1H103ZFN	C CHIP +80%-20%		2	
C3304, 3305	ECUV1H101JCN	C CHIP +-5%	50V 100P		
C3304, 3303	ECUV1H120JCN	C CHIP +-5%	50V 100P		
C3308	ECUV1H220JCN	C CHIP +-5%	50V 22P		
C3309	ECUV1H090CCN	C CHIP +-5%	50V 9P		
C3310	ECUVIH103ZFN	C CHIP +80%-20%			
C3311	ECEA0JKA470	ELECTROLYTIC	6. 3V 47	-	
C3603	ECUV1H390JCN	C CHIP +-5%	50V 39P		
	(H)			<u> </u>	
C3604	ECA0JM471B	ELECTROLYTIC	6. 3V 470	- 1	
	(H)				
C4001	ECUV1E104KBN	C CHIP	25V 0.1	1	
C4002	ECST1CY105	TANTALUM CHIP	16V 1	_	
C4003	ECUZ1H272KBN	C CHIP	50V 0.0027	1	
C4004	ECUZ1H103KBN	C CHIP	50V 0.01		
C4005	ECEA0JK220	ELECTROLYT IC	6. 3V 22	1	<u> </u>
C4006	ECUV1H102KBN	C CHIP	50V 0.001	1	
04007	ECEA1CKA220	ELECTROLYTIC	16V 22	1	
C4007	ECEA0JKA470	ELECTROLYT IC	6. 3V 47	1	
C4007	202.1001.11110			1 1	
C4008 C4009	ECEA1CKA100	ELECTROLYTIC	16V 10	-	
C4008 C4009 C4010	ECEA1CKA100 ECUV1E223KBN	C CHIP	25V 0.022	1	
C4008 C4009 C4010 C4011	ECEA1CKA100 ECUV1E223KBN ECUZ1H822KBN	C CHIP	25V 0.022 50V 0.0082	1	
C4008 C4009 C4010	ECEA1CKA100 ECUV1E223KBN	C CHIP	25V 0.022	1 1	

	<u> </u>			100	(E10, E11, E1	12)			<u> </u>			* .
Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks	Ref. No.		Part No.	Part	Name & Descripti	on	Pcs/ Set	Remarks
	ECEA1HKA010	ELECTROLYTIC 8.80 50V 1	Set 1		C7517	ECI12	11E104ZFN	C CHIP	+80%-20% 25V	0. 1	Set	in a
C4014 C4015	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	-		C7520	1		C CHIP	+-5% 50V	100P		Type 1
C4016	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	_	and the special specia	C7522, 7523			C CHIP	+-5% 50V	100P	_	7 pi
C4018	ECEA1HKA010	ELECTROLYTIC 50V 1	1		C7526			ELECTROL	YTIC 16V	10		region .
C4019	VCYSARC103NY	CERAMIC +-30% 16V 0.01	1		C7527	ECU2	1H103ZFN	C CHIP	+80%-20% 50V	0.01	11	k :
C4030	ECUZ1E333KBN	C CHIP - 25V 0.033	1		C7531	ECU2	Z1H103ZFN	C CHIP.	+80%-20% 50V	0.01	5010	4199
C4102	ECHS1562JZ3	POLYESTER +-5% 100V 0.0056	-	agrigin again								
C4103, 4104	ECUZ1H103KBN	C CHIP 50V 0.01	2	<u> </u>			· .		.1 67867C		9 8 1	984 T E
C4106	ECEA1CKA220	ELECTROLYTIC 16V 22			FI 1001	10.50	2001.4	FILTER	S		-	
C4151	(A, B, C, D, H)	ELECTROLYTIC 16V 10	1	Jany Fage 1 1036	FL4001	VLFS	30014	_			1	
	ECEA1CK100	ELECTROLYTIC 16V 10	1			 			4 8.0 990			iia.
	(E, F, G)						-	COILS				
C4152	ECEA1CKA470	ELECTROLYTIC 100 16V 47	1		L3001	ELES	SN101KA A	hys as Bordy (THE PROPERTY.	100	1	
C4154	ECEA1EK4R7	ELECTROLYTIC 25V 4.7	1		L3002	ELES	SN220KA		11 5 6 4	22	1	
	(A, B, C, D, E, F, G)	7 875 ED)	1.11		L3003		SN680KA	V 1745		68		ege nool
	ECEA1EKA4R7	ELECTROLYTIC 7 7 25 25V 4.7	1,355	125 2011	L3004	+	SN330KA		(4)	33		
	(H)	w1*106- 12411 1187581	4085		L3005		SN180KA			18	-	· · · · · · · · · · · · · · · · · · ·
C4155	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7			L3010		SN101KA		V	100		
C4156 C4157, 4158	ECEA1EU471	ELECTROLYTIC 25V 470	_	ling!	L3012, 3013 L3206		SN101KA SN470KA	- 53	30.7 60.0 数据或整管 	100	2	
C4157, 4158	ECUZ1E473KBN ECEA1CKA100	ELECTROLYTIC 16V 10	-	- 5%	L3206	_	SN101KA	<u> </u>	1947	100	-	3 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2
C4160	ECEA1CU471	ELECTROLYTIC 16V 470	+		L3302	_	SH02R180J		+-5%	18	-	
C6001	VCYR1C104MX	CERAMIC: +-20% 16V 0.1		PRIATE T	L4001		0030			15M		
C6003, 6004	ECUZ1E104ZFN	C CHIPS: +80%-20% 25V 0.1	-	[67] 选[· · · ·	L4002		SN101KA		40086.75	100		
C6005	ECUZ1H103ZFN	C CHIP +80%-20% 50V 0.01			L4051	VLQ5	SH02R390K			39	1	ion i pale
C6006	ECUZ1H101JCN	C CHIP +-5% 50V 100F					B, C, D)				3.5	i (en 1 - 1755), siècimi.
C6007	ECEA1CKA100	ELECTROLYTIC 16V 10					SH02R330K			33		
C6010	ECUZ1H103ZFN	C CHIP +80%-20% 50V 0.01		26.31 6.1	1.4101		F, G, H)		e armay 100		-	
C6011	ECAOJM471B	ELECTROLYTIC 6, 3V 470	-	201.5	L4101		SN471KA SN4R7KA		\$6.04.40.87	470		
C6015	ECUZ1H561KBN ECUZ1E104ZFN	C CHIP 50V 560F			L6001, 6002 L7001, 7002	-	SN101KA	-		100	2	
C6020	ECUZ1H102KBN	C CHIP 50V 0.001	1		L7001, 7002	ELEC	MIDIKA	-		100		2 54500
C6201	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7	-	1.3		++					_	100
C6202	ECUZ1H102KBN	C CHIP 50V 0.001	-					CRYST	AL OSCILLATOR		-	
C6203	ECUZ1H103KBN	C CHIP 50V 0.01	1		X3001	VSXS	0195			-	-1	7.
C6204	ECEA0JKA330	ELECTROLYTIC 6. 3V 33	1		X6201	VSXS	0168	:			1	\$ 1.85c.
C6205, 6206	ECUZ1H103KBN	C CHIP 50V 0.01	-		X7501		C4194T4				1	
C6207	ECEA0JKA470	ELECTROLYTIC 6. 3V 47		Mary Company	X7502	VSXS	80176				1.	- y-
C6208	ECUZ1H470JCN	C CHIP +-5% 50V 47F	-	AA, 3, 375 1		1	183 %	:			1.11	481 1750
C6209 C6210	ECUZ1H390JCN	C CHIP +-5% 50V 39F C CHIP +80%-20% 50V 0.01	_	AS 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-	984 (3)	PIN HE	ADEDE			(P. 4) (1) (S.
C6211	ECUZ1H103ZFN ECOB1H393KF	POLYESTER 50V 0.039		nest Ari	P1201	V 199	0338	PIN NE	ADERS	7P	1	Part 1997
C6212	ECUZ1H181JCN	C CHIP +-5% 50V 180F	-	25 C A 1 11 1	P3001			CONNECTO	OR ASS'Y	2.7	1	1911
C6213	ECUZ1H182KBN	C CHIP 50V 0.0018	-	10 1 A 1	P3002		0275	CONTRACTO	3 12.4	5P	-	H107: 1 1,295
C6214	VCYR1C104MX	CERAMIC +-20% 16V 0.1		100 A 1 0000	P3003		0642		10.148[] }	22P	1	Mail ruissa
C6215	ECEA1HK010	ELECTROLYTIC 50V 1	1:1:	130 A.1	P4101	VJSS	30644		17.7%	2P	1.0	國際 [4548] 564個
	(A, B, C, D, E, F, G)		据证	40 g.:	P4151	VEKS	55024	CONNECTO	OR ASS'Y	331	1	33 ₁ 1 - 3327
	VCYR1C104MX	CERAMIC +-20% 16V 0.1	1488	1 和1 点:	P4152		0268 / //		4 (40) ;	2P		校報(172-47
	(H)	- 174 W.	1,0000	1.804,A.1	P4153		30273		1385	3P	_	1939 <u>2838</u>
C6216	VCYR1C104MX	CERAMIC +-20% 16V 0.1	_		P6001	_	0268		-Ciag	2P	+	1967 : 16899
C6217 C6218	ECUZ1H272KBN ECEA0JKA220	C CHIP 50V 0.0027 ELECTROLYTIC 6.3V 22	_	(23) 1970) 104: 1780	P6201 P7501		S0642 SJAB220AE	FLAT CAE	N F 19P	22P	1	13, 354
C6219, 6220	ECEA1HKA2R2	ELECTROLYTIC 5.3V 22		Wile son	P7501			CONNECTO			++	
C6213, 6220	ECUZ1H272KBN	C CHIP 50V 0, 0027		1.78 - 4(C)	,,502	, cae			STOTOARS		<u>'</u>	
C6222	ECEA0JKA220	ELECTROLYTIC 6. 3V 22	+	1			1 1 3 Vi		JOY EMPORE	1 2	PRE 16	DHI . DEAD
C6223	ECUZ1H102KBN	C CHIP 50V 0.001					t two a var		HESPEREN DE	W(,))	Surv	
C6225	ECEA0JKA220	ELECTROLYTIC 6. 3V 22	_	1	SW6002		105SV1	CASSETTE	UP/DOWN SWITCH		:04%	riin Kaa vaasi
C6226	ECEA1CKA100	ELECTROLYTIC 16V 10					t in ve	203-208		A 35%	11 375	pp. 10463
C6227	ECUZ1E473ZFN	C CHIP +80%-20% 25V 0.047		W1 V 1019			1 17 1 40	<u> </u>	1140 0:	46.26	21401	D8) - 1088C
C6228	ECEAOJKA101	ELECTROLYTIC 6. 3V 100	_	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2010/7		1 7 7 17		PROTECTOR	A 35 A	173	.124
C6229	ECUZ1H472KBN	C CHIP SON AT 50V 0.0047	-	200-300	PR1203			IC PROTE		1.5A	-	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
C6230	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1		Mary 8	—	⚠ OR U		IC PROTE		1. 5A	1	<u>, 72</u>
C6231 C7001	ECUZ1E473KBN ECEA0JKA221	C CHIP STOP AT 25V 0.047 ELECTROLYTIC X AT 6.3V 220	-	RO 3.			1 1 1	:	1 / 250°08/ 1 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2	15	gill,da Napro	02 - 66 03 - 680
C7001	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1	_	193 T. T. 193			1 10 1 10		FORMER		errory	20% - 18.2% 20% - 18.2%
C7004	ECUZ1H103ZFN	C CHIP +80%-20% 50V 0.01		9.7	T4101	VLTS	30304	-	10 MILEN	.0	3uba	7977 71381
C7007	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1	_				F 11 3		Larcho V II	*.78	Nat 1	57: 7830
C7008	ECEA1CKA101	ELECTROLYTIC 16V 100	_				1 1 to 1	2	- FAMILY I	15	1967	.65 17850
C7009, 7010	ECUZ1H103ZFN	C CHIP +80%-20% 50V 0. 01	2	Silva			\$ 1 \$ \$ \$ \$ \$	PRINTE	D CIRCUIT BOAR	D ASS	ЕМВ	
C7501-7503	ECUZ1H102KBN	C CHIP 50V 0.001	_									
C7504, 7505	ECUZ1H101JCN	C CHIP +-5% 50V 100F	-	194. T	E10	▲ VEPS	03125C2	CCV C. B.			1	E. S. D.
C7508, 7509	ECUZ1H101JCN	C CHIP +-5% 50V 100F	-	197 tan		1		-	6998849			
C7510	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1	_						grappi i vieterii.	10	J 153	and a second
	ECUZ1H390JCN	C CHIP +-5% 50V 39F	-			-	1 1990 JA		LANEOUS	- 35	11942	[1.7] 1.574 Pc
C7511	ECHTILITED ION	14 4017 1-3% 50V 15F	2	BER 1 0 2			+ + 26	P 340	1949 / 1978 C	15.	12.00	100 1-31
C7512, 7513	ECUZ1H150JCN		1	1000	IK3801 /E111	VIDE	0279	PIN HACE	16.5		9 1	1 to 700
	ECEA0JKA101	ELECTROLYTIC 6. 3V 100	10	9874 - 10151 Note:	JK3601 (E11)	_		PIN JACK	(1991)		17	1,5 - 289 c
C7512, 7513				98'- 1818' 181	JK3601 (E11)	(H)		TUNER/TV DEMODULA	TOR	1/	, S

(E13, E45, E51, E52, E74)

(E13, E45, E5	51,1	E52, E74)				(E68, E78, E7	79)				
Ref. No.	Г	Part No.	Part Name & Description	Pcs/	Remarks	Ref. No.		Part No.	Part Name & Description	Pcs/	Remarks
				Set	110111011110	11071 1101			·	Set	THE INDIANCE
E51		VHDS0276	SCREW 3X10	1		1	_		COILS	ـــــــــــــــــــــــــــــــــــــ	
E45	_	VMTS0035	CUSHION	4		L8501	_	ELESN101KA	100	_	
E74	_	VMTS0094	CUSHION	1		L8504	_	ELESN101KA	100	1	
E13	_	VGPS2943	ANT TERMINAL PLATE	1		-	_			-	
	_	(A, B, C, D, E, F, G)					-				
E13	_	VGPS2941	ANT TERMINAL PLATE		ļ	- I	-		PIN HEADERS	-	
	1	(H)				P8501	L	VJHS0299	99	1	
E52.	├-	VHDS0319	SCREW 3X12	1		d	-			-	
	L	(H)				-	1			<u> </u>	-
						10500	_	ERD21LL0	RESISTORS CHIP 1/8W 0	-	ļ
	-		CCV C.B.A.	<u> </u>	<u> </u>	J8509	-	ERUZILLO	CHIP 1/8W 0	1	<u> </u>
	A		CCV C.B.A.	_			H			-	+
	\vdash		INTEGRATED CIRCUITS	 		-	-		MISCELLANEOUS	-	
1C8501		MC144143P1	IC MOS LOGIC CCV	1	E. S. D.	1	H		MISOELEANEOUS	 	
1C8503	-	NJM2235M	IC BIPOLAR LINEAR VIDEO INPUT	1	C. O. D.	E68		VEKS5221	LUG ASS'Y	1	1
100000	-	NOME 2,00M	SW	<u> </u>		E78	-	VSCS2007	SHIELD CASE -TOP	1	1
	\vdash					E79		VSCS2008	SHIELD CASE -BOTTOM	1	-
	\vdash					1				<u> </u>	
	T		TRANSISTORS			1				_	1
08501	\vdash	2SD601 (Q, R, S)	CHIP	1		1			POWER SUPPLY ASS'Y		
08505	_	2SD601 (Q, R, S)	CHIP	1						$\overline{}$	
									INTEGRATED CIRCUITS		
	Γ					IC1001	Δ	PS2501-1-X	IC BIPOLAR LINEAR ERROR V. DET	1	
			DIODES				Δ	OR 0N3131-R. KT	IC BIPOLAR LINEAR ERROR V. DET		
D8500		WG713A		1							
D8504, 8505		WG713A		2							
	L						L		TRANSISTORS		
	L							2SC4533LP, KT		1	
	L		RESISTORS					OR 2SC5130LF608			
R8500	L	ERD21LLJ103	CHIP 1/8W 10K	1		01002	Δ	2SD1458		1	
R8502, 8503	L	ERD21LLJ102	CHIP 1/8W 1K	2		01003	_	2SD636 (Q)		1	
R8505	L	ERD21LLJ102	CHIP 1/8W 1K	1		01004	_	2SB641 (Q)		1	
R8507	╄	ERD21LLJ103	CHIP 1/8W 10K	1		01005	-	2SB641 (R)		1	
R8508	1	ERD21LLJ472	CHIP 1/8W 4.7K	1		-	-			↓	
R8509, 8510	<u> </u>	ERD21LLJ122	CHIP 1/8W 1.2K	2			-			-	-
R8512	-	ERD21LLJ101	CHIP 1/8W 100	1		01001	_	0190440	DIODES	 .	-
R8516	-	ERD21LLJ101	CHIP 1/8W 100	1		-	-	S1WBA40		1	
R8517	╀	ERD21LLJ471	CHIP 1/8W 470 CHIP 1/8W 560	1		D1002, 1003		ERA18-04		2	
R8518	╀	ERD21LLJ561	CHIP 1/8W 560 CHIP 1/8W 470	1		01005	-	MA188-TA5 OR 1SS244T-77		1	-
R8519 R8537	\vdash	ERD21LLJ471 ERD21LLJ684	CHIP 1/8W 680K	1	-	D1006	-	RU2YXLFC1		1	-
R8539	\vdash	ERD21LLJ222	CHIP 1/8W 2.2K	1		1 1000		OR ERB32-01L3	The second secon	 '	
R8540	╁	ERD21LLJ152	CHIP 1/8W 1.5K	1		D1007		MA188-TA5		1	-
R8541	+	ERD21LLJ392	CHIP 1/8W 3.9K	1	 	101007		OR 1SS244T-77		+-	
R8543	\vdash	ERD21LLJ182	CHIP 1/8W 1.8K	1		D1008		D2S4M		1	-
R8544, 8545			CHIP 1/8W 0	2		1	-	OR EK13		 '	
R8546	-	ERD21LLJ182	CHIP 1/8W 1.8K	1		1		OR EK13F7			
R8547	1	ERD21LLJ102	CHIP 1/8W 1K	1			$\overline{\Lambda}$	OR ERB83-004		-	
R8549	T	ERD21LLJ474	CHIP 1/8W 470K	1			Δ	OR ERB83-004G1			
R8550	T	ERD21LLJ101	CHIP 1/8W 100	1		D1011		MA4051NH	ZENER 5, 1V	1	
R8551	T	ERD21LLJ471	CHIP 1/8W 470	1		D1012		MA858		1	
	T					D1013		MA165		1	
	Γ					D1015	Δ	MA2180LF	ZENER 18V	1	
	Γ		CAPACITORS			D1016		MA165		1	
C8500	L	ECEA1 EK4R7	ELECTROLYTIC 25V 4.7	1							
C8503	L	ECOV1H224JM	POLYESTER +-5% 50V 0.22	1							
C8504, 8505	L	ECUZ1H101JCN	C CHIP +-5% 50V 100P	2					RESISTORS		
C8507	L	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1	1		R1003	L	VRESE2TJ334	1/2W 330K		
C8508	L	ECUZ1H103KBN	C CHIP 50V 0.01	1		R1004	-	ERG2SJM333H	METAL OXIDE 2W 33K	+	
C8511	1	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1	1				OR ERG2SJS333H	METAL OXIDE 2W 33K	-	ļ
C8512	1	ECUZ1H561KBN	C CHIP 50V 560P	1				OR ERG2SJ333H	METAL OXIDE 2W 33K		
C8513	1	ECUZ1H103ZFN	C CHIP +80%-20% 50V 0.01	1	ļ	R1005	-	ERG1SJM560P	METAL OXIDE 1W 56		ļ
C8514	+	ECEA0JK470	ELECTROLYTIC 6. 3V 47	1	-			OR ERG1SJS560P	METAL OXIDE 1W 56	-	
C8531	1	ECEA1HK2R2	ELECTROLYTIC 50V 2.2	1	ļ. ·	01000	Δ	OR ERG1SJ560P	METAL OXIDE 1W 56		
C8532	+	ECUZ1H103ZFN	C CHIP +80%-20% 50V 0.01	1	<u> </u>	R1006	-	ERDS2TJ222	2.2K		ļ ·
C8533	+	ECEA0JK470	ELECTROLYTIC 6. 3V 47	1	-	R1007	-	ERDS2TJ101	100	-	
C8534	1	ECEA1HK2R2	ELECTROLYTIC 50V 2.2	1	<u> </u>	R1008	-	ERDS2TJ392	3. 9K	-	ļ
C8537	+	ECEA1HK2R2	ELECTROLYTIC 50V 2.2	1	-		-	ERD25FJ100P	10		
C8538	-	ECUZ1E104ZFN	C CHIP +80%-20% 25V 0.1	- 1	 	1	-	OR ERD25FPJ100P	10		
	+					1 01014 101-	-	OR VRESF4FJ100P	10	-	
ļ	+		FILTEDE	<u> </u>	 	R1014, 1015	-	ERDS2TJ221	220	_	-
ELOFAL AFA	1	VII EGADINOSO	COMPLEY COMPONENT FON 22D	-	<u> </u>	R1016	-	ERDS2TJ562	5. 6K	_	+
FL8501, 850	4	VLFSAR1H330	COMPLEX COMPONENT 50V 33P COMPLEX COMPONENT 50V 330P	2	 	R1017 R1018	-	ERDS2TJ103 ERDS2TJ183	10K	-	
FL8503	+	VLFSAR1H331		1	<u> </u>		-		18K	-	
FL8504	1	VLFSAR1H330	COMPLEX COMPONENT 50V 33P COMPLEX COMPONENT 50V 330P	3	 	R1019 R1020		ERDS2TJ392	3.9K	-	
FL8505-850	1	VLFSAR1H331	COMPLEX COMPONENT SUV. 330P	3	 	R1020	-	ERDS2TJ682 ERDS2TJ221	6. 8K		
	+		<u> </u>	-	 	NIVEZ	1	LADOZ IJZZI	220	1	
 	+			 	 	1	-	· · · · · · · · · · · · · · · · · · ·	· · ·	-	
	1		1	L	1		1	1	I		1.

						(E14, E15, E1	6, E	19)		-	
Ref. No.	П	Part No.	Part Name & Description	Pcs/	Remarks	Ref. No.	П	Part No.	Part Name & Description	Pcs/	Remarks
1101, 110,	\sqcup	Tare No.		Set	Tionarito	11011 1101	\perp			Set	Tional Ro
	4.4		CAPACITORS				\dashv		MISCELLANEOUS		
C1001		ECKDRS103ZV	CERAMIC +80%-20% 125V 0.01	1		l	\dashv		SIGE VOLUME		
		OR VCKSEKD103PZ OR VCKSEMD103PZ	CERAMIC +80%-20% 125V 0.01 CERAMIC +80%-20% 125V 0.01	_		E15	$\overline{}$	VJSS0164 VSCS1984	FUSE HOLDER	2	
	-	OR VCKSGKD103ZZ	CERAMIC +80%-20% 125V 0.01 CERAMIC +80%-20% 125V 0.01			E14 E16	\rightarrow	VSCS2036	SHIELD CASE -TOP SHIELD CASE -BODY	1	
	-	OR VCKSGMD103ZZ	CERAMIC +80%-20% 125V 0.01	-		E10	\dashv	¥3C32U3U	SHIELD CASE -BODI		
C1002		ECKCNS332ME	CERAMIC +-20% 125V 0.0033	1			\dashv	***	 		
C1002	_	OR ECKDNS332MED	CERAMIC +-20% 125V 0.0033						OPERATION I C.B.A.		
	-	OR ECKORS332MED	CERAMIC +-20% 125V 0.0033	-		f	-		(A,B,C,D)		
	-	OR VCKSEKD332MY	CERAMIC +-20% 125V 0.0033	_			-		(3,2,0,2)		
		OR VCKSEVD332MY	CERAMIC +-20% 125V 0.0033	-					DIODES		
		OR VCKSHKD332MH	CERAMIC +-20% 125V 0.0033			D7502, 7503		WG713A		2	
C1003	-	VCKSFKK102MX	CERAMIC +-20% 125V 0.001	_		D7505	$\overline{}$	WG713A		1	
01000		OR VCKSFMK102MX	CERAMIC +-20% 125V 0.001				\neg				
		OR VCKSFVK102MX	CERAMIC +-20% 125V 0.001			J	\Box		<u> </u>		
C1004	_	ECEA2DU820YE	ELECTROLYTIC 200V 82	1					PIN HEADERS		
	_	OR VCESR2D820XE	ELECTROLYTIC 200V 82			P7551		VJSS0469	CONNECTOR 19P	1	
C1005		ECEA2DG4R7	ELECTROLYTIC 200V 4.7	1							
C1006	П	ECKW2H221KB5	CERAMIC 500V 220F	1							
C1007		VCYSBRC104MX	CERAMIC +-20% 16V 0.1	1					SWITCHES		
C1009		ECOB1H103JF	POLYESTER +-5% 50V 0.01	1		SW7501, 7502		EVQPAD05R	PUSH SWITCH	2	
C1010	П	VCYSARH102KB	CERAMIC 50V 0.001	1		SW7506, 7507		EVOPAD05R	PUSH SWITCH	2	
C1011	Δ	ECEA1HU4R7B	ELECTROLYTIC 50V 4.7			SW7510		EVQPAD05R	PUSH SWITCH	1	
	Δ	OR VCESP1H4R7B	ELECTROLYTIC 50V 4.7	4							
	-	OR VCES01H4R7B	ELECTROLYTIC 50V 4.7								
	Δ	OR VCESR1H4R7B	ELECTROLYTIC 50V 4.7						OPERATION I C.B.A.		
C1012, 1013	-	ECEA1PEE331B	ELECTROLYTIC 18V 330						(E,F,G,H)		
		OR VCESN1P331B	ELECTROLYTIC 18V 330								
		OR VCESU1P331B	ELECTROLYTIC 18V 330	_					DIODES		
C1014		ECEA1HGE4R7B	ELECTROLYTIC 50V 4.7	_		D7502, 7503	-	WG713A		2	
	_	OR VCESS1H4R7B	ELECTROLYTIC 50V 4.7	_		D7505	-	WG713A		1	
	_	OR VCESV1H4R7B	ELECTROLYTIC 50V 4.7	_		D7510, 7511		MA4130-M	ZENER 13V	2	
		OR VCES11H4R7B	ELECTROLYTIC 50V 4.7	_							
C1016	-	ECEA0JEE331B	ELECTROLYTIC 6. 3V 330								
	-	OR VCESU0J331B	ELECTROLYTIC 6. 3V 330	-			_		PIN HEADERS		
C1017	-	ECA0JM102B	ELECTROLYTIC 6. 3V 1K			P7551	_	VJSS0469	CONNECTOR 19P	1	
	_	OR ECEAOJU102B	ELECTROLYTIC 6. 3V 1K				_				
	-	OR VCESMOJ102B	ELECTROLYTIC 6. 3V 1K								
	_	OR VCESPOJ102B	ELECTROLYTIC 6.3V 1K				-		SWITCHES		
	_	OR VCESOOJ102B	ELECTROLYTIC 6.3V 1K			SW7501, 7502		EVQPAD05R	PUSH SWITCH	2	
	Δ	OR VCESROJE102	ELECTROLYTIC 6.3V 1K			SW7506, 7507	_	EVOPADO5R	PUSH SWITCH	2	
C1018	-	VCYSBRC104MX	CERAMIC +-20% 16V 0.1	-		SW7510	-	EVQPAD05R	PUSH SWITCH	1	
C1021	_	ECEA1HKG010	ELECTROLYTIC 50V 1	1			-				
C1025		OR VCKSEJD221KW	CERAMIC +-20% 125V 220F CERAMIC 125V 220F	_		II	-		MISCELLANEOUS		
	-	OR VCKSHJD221MW	CERAMIC +-20% 125V 220F			 	-		MISCELLANEOUS		
		OR VCKSHLD221MW	CERAMIC +-20% 125V 220F			E19	-	SPS-420-2-B	IR WIRELESS RECEIVING DETECTOR	1	
C1028	-	ECKDRS221MB	CERAMIC +-20% 125V 220F			E19		3F3-420-Z-D	TR WINELESS RECEIVING DETECTOR		
01020	_	OR VCKSEJD221KW	CERAMIC 125V 220F				-				
		OR VCKSHJD221MW	CERAMIC +-20% 125V 220F						OPERATION II C.B.A.		
		OR VCKSHLD221MW	CERAMIC +-20% 125V 220F				-		(A,B,C,D)		
C1030	243	ECOB1H183JF	POLYESTER +-5% 50V 0.018	_					(\(\tau_i \) = /	\dashv	·
3			5.5 507 5.616						INTEGRATED CIRCUITS		
				1		IC4501	\dashv	UPC4570C	IC BIPLOAR LINEAR OP AMP	1	
	+		COILS	1					Citation Of Fair	\vdash	
L1001	٨	ELF18D290A	29	1						 	
		OR ELF18D290A-P	29						DIODES	-	
L1002		VLOS7A220M	+-20% 22	_		D4501, 4502		HZS5C2TD	ZENER 5V	2	
L1003	1	VLOS7A9ROM	+-20%			D4591, 4592		HZS9C1TD	ZENER 9V	2	
L1006		VLPS0005A	22			D4593, 4594	_	HZS12B3TD	ZENER 12V	2	
	1					D7501	_	WG713A		1	
	1			T	-	D7504	-	WG713A		1	
			PIN HEADERS	1		D7554		LN31GCPHLMU	LED GREEN	1	
P1001	1	VJWS7BE170BD	FLAT CABLE 7P	1		D7555		LN21RCPHLMV	LED RED	1	
	Т			П		D7557	$\overline{}$	LN31GCPHLMU	LED GREEN	1	
	1					D7558	-	LN41YCPHLM	LED YELLOW	1	
	Т		FUSE & PROTECTOR	\Box			7				
F1001	Δ	VSFS0003A16	FUSE 125V 1.6A	1						\dashv	
	_	OR VSFS0012A16	FUSE 125V 1. 6A						RESISTORS		
	_	OR XBA1C16NU100	FUSE 125V 1.6A			R4501		ERDS2TJ562	5. 6K	1	-
PR1001		ICP-F38	IC PROTECTOR 1.54	_		R4502, 4503		ERDS2TJ104	100K	2	
		OR 1CP-F38-1	IC PROTECTOR 1. 5A			R4504		ERDS2TJ750	75	1	
		OR UN10015	IC PROTECTOR 1. 5A	-		R4505		ER0S2TJ470	47	1	
	T			\Box		R4591, 4592	_	ERDS2TJ101	100	2	
	1			\Box			1				
			TRANSFORMER				7			-	
	1	VTPS0033		1					CAPACITORS		
T1001	_ \(\Delta \)						-				
T1001	_	OR ETS28AD1F5AC			1	C4501	- 1	ECEA1HKN010	ELECTROLYTIC 50V 1	1	
T1001	_					C4501 C4502		VCYSARC103NY	ELECTROLYTIC 50V 1 CERAMIC +-30% 16V 0.01	1	

(E19, E21, E39)

Ref. No.	9)				
		Part No.	Part Name & Description	Pcs/ Set	Remarks
	\dashv		SWITCHES		
SW7508	\dashv	EVOPAD05R	PUSH SWITCH	1	
SW7511-7514	\exists	EVQPAD05R	PUSH SWITCH	4	
5 1314					
	\dashv				
			MISCELLANEOUS		
JK4501		VJHS0331	A/V JACK	1	
JK4591		VJJ80357	EARPHONE JACK	1	•
E19		SPS-420-2-B	IR WIRELESS RECEIVING DETECTOR	-	
E21		VMXS0583	LED SPACER	4	
			OPERATION II C.B.A.		
			(E,F,G,H)		
	_			\vdash	
	-		DIODES		
D7501	_	WG713A		1	
07504	-	WG713A	LED ODEEN	1	
07554	Ш	LN31GCPHLMU	LED GREEN	1	
07555		LN21RCPHLMV	LED RED	1	
D7557	_	LN31GCPHLMU	LED GREEN	1	
D7558	-	LN41YCPHLM	LED YELLOW	1	
	H		SWITCHES		
CW7500	-	EVQPAD05R	PUSH SWITCH	1	
SW7508 SW7511-7514	H	EVOPADOSR EVOPADOSR	PUSH SWITCH	4	
OH1011-1014	-	LTUI ADOSA	TOSH ORITON		
	Н				
	\vdash		MISCELLANEOUS		
	-		MIGOELANEOUS		
E39	H	VMXS0575	LED SPACER	4	
	-	HAUGUIG	CLD OFFICER		
	-				
			AUDIO/VIDEO JACK C.B.A	-	
	-		(E,F,G,H)	-	
	-		1 -1 1 -1 1	1-	
			INTEGRATED CIRCUITS		
IC4501	-	UPC4570C	IC BIPLOAR LINEAR OF AMP	1	
	-				
	-				
	-		DIODES		····
D4501, 4502		HZS5C2TD	ZENER 5V	2	
D4591-4594	_	HZS9C1TD	ZENER 9V	4	
	Г			\Box	
	-		RESISTORS	$\overline{}$	
	1			1	
R4501	-	ERDS2TJ562	5. 6K	1	
			5. 6K 100K		
R4502, 4503		ERDS2TJ562 ERDS2TJ104 ERDS2TJ750		2	
R4502, 4503 R4504		ERDS2TJ104	100K	2	
R4502, 4503 R4504 R4505		ERDS2TJ104 ERDS2TJ750	100K	1 1	
R4502, 4503 R4504 R4505		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470	100K 75 47	1 1	
R4502, 4503 R4504 R4505		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470	100K 75 47	1 1	
R4502, 4503 R4504 R4505		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470	100K 75 47	1 1	
R4502, 4503 R4504 R4505 R4591, 4592		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010	100K 75 47 100	2 1 1 2 2	
R4502, 4503 R4504 R4505 R4591, 4592		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101	100K 75 47 100 CAPACITORS	2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1	2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1	2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1	2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0.1	2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECCEA1HKN010 VCYSHRE104ZF	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0.1 PIN HEADERS	2 1 1 2 1 2 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y	1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y	1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y	1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0.1 PIN HEADERS CONNECTOR ASS'Y CONNECTOR ASS'Y	1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272	100K 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0.1 PIN HEADERS CONNECTOR ASS'Y CONNECTOR ASS'Y	1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4591 JK4501		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274	TOOK TS AT TOO CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y CONNECTOR ASS'Y MISCELLANEOUS	2 1 1 2 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331	TOOK TS AT TOO TOO TOO TOO TOO TOO TOO TOO TOO	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331	TOOK TS AT TOO TOO TOO TOO TOO TOO TOO TOO TOO	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357	TOOK TS AT TOO TOO TOO TOO TOO TOO TOO TOO TOO	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357	TOOK TS TS TS TS TS TS TS TS TS TS TS TS TS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357	TOOK TS TS TS TS TS TS TS TS TS TS TS TS TS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591 JK4501 JK4501 JK4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357	TOOK TS AT TOO TOO TOO TOO TOO TOO TOO TOO TOO	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591 JK4501 JK4501 JK4501		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357 AN3826NK	TOOK 75 47 100 CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y CONNECTOR ASS'Y MISCELLANEOUS A/V JACK EARPHONE JACK CAPSTAN MOTOR DRIVE INTEGRATED CIRCUITS	2 1 1 2 1 1 1 1 1 1 1 1 1 1	
R4502, 4503 R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591 JK4501 JK4501 JK4591		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ470 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357	CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y CONNECTOR ASS'Y MISCELLANEOUS A/V JACK EARPHONE JACK CAPSTAN MOTOR DRIVE INTEGRATED CIRCUITS IC BIPOLAR LINEAR CAP. DRIVE	2 1 1 2 1 1 1 1 1 1 1 1 1 1	
R4504 R4505 R4591, 4592 C4501 C4502 P4501 P4591 JK4501 JK4501 JK4501		ERDS2TJ104 ERDS2TJ750 ERDS2TJ470 ERDS2TJ470 ERDS2TJ101 ECEA1HKN010 VCYSHRE104ZF VEKS5272 VEKS5274 VJHS0331 VJJS0357 AN3826NK	CAPACITORS ELECTROLYTIC 50V 1 CERAMIC +80%-20% 25V 0. 1 PIN HEADERS CONNECTOR ASS'Y CONNECTOR ASS'Y MISCELLANEOUS A/V JACK EARPHONE JACK CAPSTAN MOTOR DRIVE INTEGRATED CIRCUITS IC BIPOLAR LINEAR CAP. DRIVE	2 1 1 2 1 1 1 1 1 1 1 1 1 1	

Ref. No.	Part	No	Part Name & Description Pcs/ Remark	
NO. NO.	rait		Set	
			ESISTORS	
R2501	VRESF2VJR		1/2W 0.68 1	
R2503	VRDSAL8J2	-	HP 1/8W 27 1	
R2504	VRDSAL8J3		11P 1/8W 33 1	
R2505	ERD10LLJ2	22 Cr	HP 1/8W 2.2K 1	
	-	_		
		-	APACITORS	
C2501-2503	ECEA1CK10		ECTROLYTIC 16V 10 3	
C2501-2303	MCUV1C104		CHIP +80%-20% 16V 0.1 1	
C2504	ECEATHU01		ECTROLYTIC 50V 1 1	
C2506	VCYW1C563		RAMIC 16V 0.056 1	
C2507, 2508	MCUV1C104		CHIP +80%-20% 16V 0.1 2	
C2509-2511	VCUSBCC10		CHIP +-30% 16V 0.01 3	
C2512	VCUSDCC15		CHIP +-30% 16V 0.0015 1	
DEGIE	100000010			
		P	IN HEADERS	
P2501	VJSS0648		22P 1	
P2503	VJWS6HB09	5LE FI	AT CABLE 6P 1	
			IFAR AND AGENT	
	塵		IEAD AMP ASS'Y	
		(A,B,C,D,E,F,G)	
			WITTON ATTON AND CHIEF	
100000	411001 511		NTEGRATED CIRCUITS	
IC2601	AN3813K		C BIPOLAR LINEAR CYL. DRIVE 1	
1C3501	AN3362K	110	C BIPOLAR LINEAR HEAD AMP 1	
			PESISTORS	
D2601 2000	ED ISCENT		RESISTORS	
R2601-2603	ERJ6GEYJ4		GF CHIP 1/10W 470 3	
R2604	ERDS2TJ1R			
R2605	ERDS2TJ1R		1.2 1	
R2606	ERJ6GEYJ5		GF CHIP 1/10W 560 1	
R3504, 3505	ERJ6GEYJ5		SF CHIP 1/10W 56 2	
R3506	ERJ6GEYJ3		GF CHIP 1/10W 330 1	
R3508	ERJ6GEYJ1	UUV MK	SF CHIP 1/10W 10 1	
		- 0	APACITORS	
C2601-2603	ECUV1E104	ZFN C	CHIP +80%-20% 25V 0.1 3	
C2604-2607	ECUV1E104	KBN C	CHIP 25V 0.1 4	
C2608, 2609	ECUV1E104	ZFN C	CHIP +80%-20% 25V 0.1 2	
C2610	ECUV1H103	ZFN C	CHIP +80%-20% 50V 0.01 1	
C2611	ECUV1E223		CHIP 25V 0.022 1	
C2612	ECUV1E104	ZFN C	CHIP +80%-20% 25V 0.1 1	
C3504	ECEA1CKA4		ECTROLYTIC 16V 47 1	
C3505	ECUV1H103		CHIP +80%-20% 50V 0.01 1	
C3506	ECUV1E104		CHIP +80%-20% 25V 0.1 1	
C3519	ECUV1E104		CHIP +80%-20% 25V 0.1 1	
C3520	ECUV1C224		CHIP +80%-20% 16V 0.22 1	
C3524	ECUV1C224		CHIP +80%-20% 16V 0. 22 1	
C3525	ECUV1E104	ZFN C	CHIP +80%-20% 25V 0.1 1	
C3529	ECUV1H103	ZFN C	CHIP +80%-20% 50V 0.01 1	
C3532	ECUV1E104	ZFN C	CHIP +80%-20% 25V 0.1 1	
			: .	
		C	OILS	
L3501	ELESN101K	A	100 1	
		P	IN HEADERS	
P3501	VJSS0648		22P 1	
	B		IEAD AMP ASS'Y	
		. (H)	
			ATTOR ATTOR AIRCONN	
1000			NTEGRATED CIRCUITS	
IC2601	AN3813K		C BIPOLAR LINEAR CYL. DRIVE 1	
IC3501	AN3361SB	10	C BIPOLAR LINEAR HEAD AMP 1	
			ESISTORS	
R2601-2603	ERJ6GEYJ4		GF CHIP 1/10W 470 3	
	ERDS2TJ1R	0	1 1	
R2605	ERDS2TJ1R		1.2 1	
R2604 R2605 R2606	ERDS2TJ1R ERJ6GEYJ5	61V M	GF CHIP 1/10W 560 1	
R2605	ERDS2TJ1R	61V M		

Ref. No.		Part No.	Part Name & Description	Pcs. Set	1	Remarks	Ref. No.		Part No.	Part Name & Description	Pcs Se	
3502-3505		ERJ6GEYJ560V	MGF CHIP 1/10W 56	4						RESISTORS	Pa. 10	
3506, 3507		ERJ6GEYJ561V	MGF CHIP 1/10W 560	2	13 :	M 980	R023		ERDS2TJ122	1. 2K	(* 1	13
3508		ERJ6GEYJ100V	MGF CHIP 1/10W 10	331	93	3) 1 545	R024		ERDS2TJ103	10K	(1	10
	П	0107	ti i i katife ya mare	134.0		rger .	R301		ERDS2TJ333	33K	() 1	1.1
		1 T 1 19	5.85000 BT 15 PC	1,1101		\$3. A	R302		ERDS2TJ104	100K	(1	
		4a1 - 3	CAPACITORS	: J.W.	1	. A	R304		ERDS2TJ393	398	(1	170
2601~2603		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	3	ei.	M In	R305		ERDS2TJ104	100K	(1	580
2604-2607		ECUV1E104KBN:	C CHIP 250 25V 0.1	4	'E. 7	, AC	R306		ERDS2TJ392	3. 9k	(1	56
2608, 2609		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	2	1	age of the track	R307		ERDS2TJ183	188	(5 1	П
2610	П	ECUV1H103ZFN	C CHIP +80%-20% 50V 0. 01	1	· - 1	1.140	R310		ERDS2TJ122	1.28	(1	
2611		ECUV1E223KBN	C CHIP 25V 0.022	1	4		R311		ERDS2TJ393	398	(1	
2612	П	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	1	174	27 249.1	R314		ERDS2TJ473	47K	(1	100
3504		ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	1	15	19: , Vii	R316		ERDS2TJ392	3. 9k	(1	F-7
3505		ECEA1CKA470	ELECTROLYTIC 47	1	1 1	5.10	R317		ERDS2TJ153	15K	(1.1	12
3506		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	1		5 8 8 7	R318		ERDS2TJ104	1008	(11	133
3507		ECUV1H103KBN	C CHIP CHIP 50V 0.01	100		भारत सम्ब	R320		ERDS2TJ392	3. 9K	(1	1
23508		ECUV1C224ZFN	C CHIP +80%-20% 16V 0.22	1		<u> </u>	R324		EVND8AA03B14	VARIABLE 10K	(1	100
3511, 3512		ECUVIE104ZFN	C CHIP +80%-20% 25V 0.1	2		点的表示	R325		EVND8AA03B13	VARIABLE 1K	(3	K. C
23513		ECUV1C224ZFN	C CHIP +80%-20% 16V 0. 22	! 1	M	18 1 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	R327		ERDS2TJ103	10K	(1	DE :
23519		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	1			R333		ERDS2TJ182	- 1.8K	() 44	EC4
23520		ECUV1C224ZFN	C CHIP +80%-20% 16V 0.22	1			R335		ERDS2TJ821	820) 1	P
23524		ECUV1C224ZFN	C CHIP +80%-20% 16V 0.22		_		R336	Ĺ	ERDS2TJ152	1.5K	-	-
3525		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	/ 1	Γ		R338		ERDS2TJ471	470) 1	E.
23528		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	1		J. 188	R342		ERDS2TJ472	4. 7K	(1	J
23529		ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	111		.61	R344		ERDS2TJ472	4. 7K	(1	
23532		ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	1	I		R345		ERDS2TJ271	270) 1	12
23533		ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	1			R349		ERDS2TJ103	108	(1.1	
			하지 존재실우리 급진학생인(연연)		Τ		R394, 395		ERDS2TJ103	108	(2	2
				111	a 5	A 50	R396		ERDS2TJ104	100K	(1	
			COILS	1401		Arria de la	R401		ERDS2TJ222	2. 2K	(1	П
L3501		ELESN101KA	100) 1			R402		ERDS2TJ333	33K	(1	П
				1	T		R409		ERDS2TJ273	27K	(1	П
			Britistalus - en luga				R410		EVND8AA03B54	VARIABLE 50K	1	Π
			PIN HEADERS		\top		R411		ERDS2TJ223	22K	1	\sqcap
P3501		VJSS0648	22P	1	T		R413		ERDS2TJ272	2. 7K	(1	\sqcap
				27.1		A Total	R414	Δ	ERDS1FJ2R2P	1/2W 2.2	1	T
				\top	\top			Δ	OR ERDS1FPJ2R2V	1/2W 2.2	2	\top
			TV MAIN C.B.A.		1		R415		ERDS2TJ393	398	(1	T.
			(A,B,C,D)		1		R416		ERDS2TJ472	4. 7K	(1	丌
			18 P. CWS 11 27 27 20 1	1	1,20	-1247	R417		ERDS2TJ561	560	1	T
	Н		INTEGRATED CIRCUITS	1	+		R418		ERDS2TJ474	470K	-	\vdash
IC301	Λ	LA7621	IC BIPOLAR LINEAR LUMA/CHROMA	1	+		R422	Δ	ERD25FJ101P	100	1	100
1C451 (E54)			IC BIPOLAR LINEAR VERTICAL OUT	_	\top			⇇	OR ERD25FPJ101V	/9410 - 34 100) Sins	- 1
	-			1.75	7 .	357	R425	Г	ERDS2TJ564	2610-6 560K	-	ı
			12	2000		184.6.1	R427		ERDS2TJ1R5	1.5	-	n
	П		TRANSISTORS	1.0		المعط ووقال المعاملا	R441		ERDS2TJ102	ANT IMPRIOR OF		n t
Q006		2SC1684(R)		1	1		R443		ERDS2TJ153	##1297.091 15K	1	n t
Q309, 310	П	2SB641 (Q)	-	2			R445		ERDS2TJ101	#177 EXETOR: 11 100	1	
Q501	П	2SC1473A(0)	AR THROUGH HET WEST	1	T		R447	Т	ERDS2TJ333	33K	1	Π
0505, 506	П	2SB641 (0)		2	_		R448		ERDS2TJ684	\$23.54 KM 680K		ī
0507		2SD636(Q)	4,8 E 30, co	8.1	_	mar sa	R501		ERDS2TJ331	330		-
0510	\vdash	2SD636 (Q)	e streetyn of	1		O A 94	R502		ERDS2TJ332	3.3K	-	-
0551 (E53)	A	2SD1555LBMTV		1			R503	Δ	ERD25FJ681P	680	_	-
			:	+	+	7 1			OR ERD25FPJ681V		_	-
			RYKSGKA ZARDARK	+-	+		R504		ERDS2TJ153	2015K	$\overline{}$	
	Н	<u> </u>	DIODES	+	+		R505	Δ	ERDS1FJ221P	1/2W 220	_	_
D013	Н	MA165	APACO	851	-	fig. 1		=	OR ERDS1FPJ221V	09109 1/2W 220	_	3
D302, 303		MA165	1/840	2	-		R506	243	ERDS2TJ222	2.2K		Ħ
D304	Н	MA4082-M	ZENER 8. 2V		_	1 63	R507	Δ	ER0S2TKF1502	METAL FILM +-1% 15K	_	-
D308	Н	MA165	A SERVICE OF SERVICE O	101	_	F 1	11001		OR KROS2TKF1502	METAL FILM +-1%3 15K	-	-
D401		EM1ZV	T spal and Ass	1	-	// 201 // 145	R508		ERD25FJ100P		1,294	_
D501	Н	MA4082-H	ZENER 8.2V	_		77 7945	11000	-	OR ERD25FPJ100V	1 (2.1.1.00m 2007) 10 1 (2.1.1.00m 2007) 10		+
D503	A	ERB43-04V	22 (32) A 134 (37)	a 1	-	177	R509	-	EROS2TKF2372	METAL FILM +-1% 23.7K	+-	7
0000		OR ESTV			1	3 33	11000	-	OR KROS2TKF2372	METAL FILM +-1% 23.7K	-	-1
D506	4	MA165	TO A THE SAME AND A STREET OF THE SAME AND A S	1	+		R511	-	ERG12SJ273P	METAL OXIDE 23.7K	-	#
D507	-	MA4200-H	ZENER 20V	-	_		R511	44	ERDS2TJ183		_	-
	Н		ZENCA ZOV		_			-			-	-
0508	_	MA165	TENEDOS OS ASSASSOS - CO	1	-+-	46-1	R513		ERDS2TJ562			-
0510	Δ	MA4075-HTAKT	ZENER 7. 5V	_	_	281	R516	A	ERG3ANJ472H	METAL OXIDE 3W 4.7K	$\overline{}$	-
0514	-	MA165	75.0 ER .	1	_		R518	Δ	ERG3ANJ472H	METAL OXIDE 44.7K	+	
0553	-	ERB43-04V		1	+		R519	-	ERDS2TJ154	80 50x 50X	-	
	Δ	OR ESTV 55	opan de cacrila :	1	+		R521	-	ERDS2TJ101	1.0915939 100		
D554, 555	Ļ	MA167 A123 1133	1 18,901 751 8 3	2	-	المستشنية	R522		ERDS2TJ103 /	10K 4G 10K	-	-
D558	Φ	ERB43-04V.	THE WAR IN THE STATE OF	1	9.3	The Property of the Control of the C	R523		ERDS2TJ333	33K		-
		OR ESTV 117 3	177 Hade to the first	1	1		R524		ERDS2TJ223	10 55Y 205 (22K		-
0560	-	ERB43-04V		1	1		R525		ERDS2TJ822	8.2K	_	_
	Φ	OR ES1V			\perp		R526		ERDS2TJ155	, equipment 1.5M	134	W
0601-603		MA165	25 U.S. 3 NO.	3			R527		ERDS2TJ272	: -华产 ; 2.7 K		₫
	П		-	100		~k,	R530	Δ	ERG2SJU471V	METAL OXIDE 1986 2W 470	331	
	-											
				Ľ	<u>.</u>			Δ	OR ERG2SJ471H	METAL OXIDE 2W 470	1 10	

Remarks

(E8, E9, E41, E47, E48, E49, E50, E54, E57, E59, E60, E67, E70)

					(E	E8, E9, E41,	E47	, E48, E49, E50, E54, E	57, E59, E60, E67, E70)		
Ref. No.		Part No.	Part Name & Description	Pcs/	Remarks R	Ref. No.		Part No.	Part Name & Description	Pcs/	Remarks
				Set				00 TOWN 01/00 1/		Set	
R537	_	ERDS2TJ821	820	_		$\overline{}$	⚠	OR TCWH12H562J5	POLYESTER +-5% 1250V 0.0056		
R545	Н	ERDS2TJ680	68 10K	1		558 560	Λ	ECEA2DS100E	ELECTROLYTIC 25V 100	1	
R551	Н	ERDS2TJ103 ERDS2TJ273	27K	1			Δ	OR ECEA2DU100E	ELECTROLYTIC 200V 10 ELECTROLYTIC 200V 10	1	·
R552 R553	Н	ERDS2TJ102	1K	_	C5		=	ECEA2CU2R2B	ELECTROLYTIC 160V 2. 2	1	
R554		ERDS2TJ123	12K	1		601-603	43	VCYSARH391KB	CERAMIC 50V 390P	3	
R555		ERDS2TJ154	150K	1		605		ECOM1H104KV	POLYESTER 50V 0.1	1	
R556		ERDS2TJ823	82K	. 1	CE	606		ECOM1H153KV	POLYESTER 50V 0.015	1	
R558	Δ	ERG2SJU471V	METAL OXIDE 2W 470	1	. C6	607, 608		ECEA1HU2R2	ELECTROLYTIC 50V 2.2	2	
	\triangle	OR ERG2SJ471H	METAL OXIDE 2W 470		CE	609		ECCW1H330JC5	CERAMIC +-5% 50V 33P	1	
R601-603		ERDS2TJ331	330	-		610		ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	1	
R604	$oxed{oxed}$	ERDS2TJ334	330K	1		611		ECEA1HU2R2	ELECTROLYTIC 50V 2.2	1	
R605		ERDS2TJ564	560K	1		612		ECEA1EU4R7	ELECTROLYTIC 25V 4.7	1	
R607	-	ERDS2TJ152	1. 5K	-		614		ECCW1H560JC5	CERAMIC +-5% 50V 56P	1	
R608		ERDS2TJ102	1 K	1		615 808	Δ	ECCW1H150JC5 ECEA180V33WE	CERAMIC +-5% 50V 15P ELECTROLYTIC 180V 33	1	
R609	\vdash	ERDS2TJ222 ERDS2TJ102	2. 2N	-			$\frac{\Delta}{\Delta}$	VCKS0009	CERAMIC +-20% 125V 0.0033	1	
R614		ERDS2TJ222	. 2, 2K	1			Δ	OR VCKS0009C	CERAMIC +-20% 125V 0.0033	'	
R621	-	ERDS2TJ273	27K	1		****		OR VCKSOOOSCF	CERAMIC +-20% 125V 0.0033		· · · · · · · · · · · · · · · · · · ·
R622		EVND8AA03B24	VARIABLE 20K	1			4	OH VOKOGGGGG	200 1207 0.0000		
R623	\vdash	ERDS2TJ183	18K	1							
R624	\vdash	ERDS2TJ273	27K	1					COILS		
R625		ERDS2TJ392	3. 9K	1	LS	302		ELT10Z3C3		1	
R626		ERDS2TJ393	39K	1		303		VLOSH02R101K	100	1	
R627		ERDS2TJ332	3. 3K	1	Le	601		VLOSH02R100K	10	1	
R628	L	ERDS2TJ223	22K	1							
R629	1	ERDS2TJ273	27K	1							
R630	1	ERDS2TJ102	1K	1					CRYSTAL OSCILLATOR		
R631	-	ERDS2TJ392	3. 9K	1		501		CSB503F5		1	
ļ	-				XE	601		TSS816M		1	
	┼		CADACITODS				_				
C201	-	ECEA1HU3R3	CAPACITORS ELECTROLYTIC 50V 3.3	1					PIN HEADERS		***************************************
C301	\vdash	ECEATEU4R7	ELECTROLYTIC 25V 4.7		Pk	K1	-	VJPS0275	5P	1	
C313	-	ECEATHU010	ELECTROLYTIC 50V 1	1		K2		VJPS0177	7P	1	
C314	\vdash	ECEA1CU100	ELECTROLYTIC 16V 10			K6	-	VJPS0268	2P	1	
C315	1	VCYSARH220JC	CERAMIC +-5% 50V 22P								
C316		VCYSARH150JC	CERAMIC +-5% 50V 15P	1							
C401		ECEA1HGE1R5	ELECTROLYTIC 50V 1.5	1					SWITCHES		
C402		ECEA1CU471	ELECTROLYTIC 16V 470	1	SV	W301		EVQRBAL10	SERVICE SWITCH	1	
C405		ECKW1H122KB5	CERAMIC 50V 0.0012	1							
C407		ECKW1H561KB5	CERAMIC 50V 560P	1							
C408	<u> </u>	ECEA1HGE010	ELECTROLYTIC 50V 1	1					TRANSFORMER		
C409	-	ECEA1EU101	ELECTROLYTIC 25V 100	-		501	_	TLH15419		1	
C410	-	ECKW1H472KB5	CERAMIC +-10% 50V 0.0047	1				ETE19Z30AY	SI VELOV TELLIASOPINS	1	
C411	-	ECCW1H100DC5		1		551 (E57)	Δ	TLF14767F	FLYBACK TRANSFORMER	1	
C413	\vdash	ECCM1H104KV ECEA1CU222	POLYESTER 50V 0, 1 ELECTROLYTIC 16V 2, 2K	1	ļ						
C414 C415	+-	ECEA1HU0R1	ELECTROLYTIC 50V 0.1	1			-		PRINTED CIRCUIT BOARD ASS	EMP	V
C416	+	ECOM1H563KV	POLYESTER 50V 0.056		 				FRINTED CIRCUIT BOARD ASS	EMD	-1
C417	\vdash	ECEA1HU010	ELECTROLYTIC 50V 1	-	EE	8	•	TNP73135AA	CRT C. B. A.	1	AKEI
C418	-	ECEA1EU101	ELECTROLYTIC 25V 100		ES			TNP73136BB	TV POWER C. B. A.	1	AKEI
C501	Δ	ECEATVS100B	ELECTROLYTIC 35V 10	-			F			-	1,11,12,1
		OR ECEATVUTOOB	ELECTROLYTIC 35V 10								
		OR SCEATVS100B	ELECTROLYTIC 35V 10						MISCELLANEOUS		
		OR SCEATVUIOOB	ELECTROLYTIC 35V 10								
C502		ECEA1CU471	ELECTROLYTIC 16V 470			59		TMM16480-1	CLAMPER	1	
C503		VCYSARH561KB	CERAMIC 50V 560P		E			TMM77412	CLAMPER	2	AKEI
C504	L	ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	1		47		TUC76677-1	HEAT SINK PLATE	1	
C506	\vdash	ECQM1H473KV	POLYESTER 50V 0.047	-		60		TUC77619	HEAT SINK PLATE	1.	AKEI
C507	\perp	ECEA1HU3R3	ELECTROLYTIC 50V 3.3	+		70		VJWS2AW220MM	FLAT CABLE 2P	1	AKEI
C508	1	ECOM1H103KV	POLYESTER 50V 0.01			67		VZFS0006	CLAMPER	2	
C509	+	ECEA1CU470	ELECTROLYTIC 16V 47	-		50		XTV3+10G	TAPPING SCREW 3X10	1	
C510	+	ECKW2H331KB5	CERAMIC 500V 330P			49	-	XYN3+F12S	SCREW WITH WASHER 3X12	1	
C511	+	ECKW1H272KB5	CERAMIC +-5% 50V 0.0027	1	±4	48		XYN3+F6S	SCREW WITH WASHER 3X6	1	`
C512 C513	+	ECKW1H560JC5 ECKW1H122KB5	CERAMIC +-5% 50V 56F	-			Н				
C513	+	ECKC3D271KB	CERAMIC SKV 270P	+					TV MAIN C.B.A.	\vdash	
C514	+	ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	_			1942		(E,F,G,H)		
C520	۲	ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	-	-			······	/ /, 1 /, /	-	
C521	T	ECEATHU010	ELECTROLYTIC 50V 1	1					INTEGRATED CIRCUITS		
C522	1	ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	-	l lic	C301	Δ	LA7621	IC BIPOLAR LINEAR LUMA/CHROMA	1	
C523	T	ECEA1HU100	ELECTROLYTIC 50V 10	-		C451 (E54)	-		IC BIPOLAR LINEAR VERTICAL OUT		
C527	T	ECOF2H364JZA	POLYESTRER 500V 0.36	+				OR LA7835-TA	IC BIPOLAR LINEAR VERTICAL OUT		
C530		ECKW1H562KB5	CERAMIC 50V 0.0056								
C531	T	ECKW1H182KB5	CERAMIC 50V 0.0018	-							
1	-	VCYSARH181KB	CERAMIC 50V 180P	1					TRANSISTORS		
C532	1	TOTORIUTOTRO					-				
C532 C551	\perp	ECKW2H221KB5	CERAMIC 500V 220F	1		006		2SC1684(R)		1	
C532				1	03	006 309, 310 312		2SC1684(R) 2SB641(Q) 2SD636(Q)		2	

(E53)

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
0501	\vdash	2SC2653H(C, L)		1	
2505, 506	Н		valuated caratable -	2	66.01 1308
2507	Н	2SD636(0)		1.1	
2510		2SD636 (0)		181	GRYT SI
0513	H	2SB641 (0)		1 1	
)551 (E53)	Δ	2SD1555LBMTV		1	
	Ш		· · · · · · · · · · · · · · · · · · ·		
				die.	
			DIODES	1. 9	50 July 138
0013	П	MA165		1	- V
302,303	П	MA165		2	
0304	П	MA4082-M	ZENER 8. 2	V 1	
0308	\vdash	MA165	5.40 Fig. 240454	1	
2401	-	EMIZV	1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.48	SH . Ye
0501	Н	MA4082-H	ZENER 8.2		
	-		ZENER 6. 2		
0503	-	ERB43-04V		1	
	Δ	OR ESIV	alither land or view	-	
D506		MA165		1	ST + 193
D507		MA4200-H	ZENER 20	V 1	10 th 10 th
D508	П	MA165	A Report States 1984	454	er at may day
0510	Δ	MA4075-HTAKT	ZENER 7.5	V 1	
0514		MA165		1	
D551		RH2FV	as resemble hemater	l i	
0552	A	ERB44-04V		1	
		OR EU2ZV	- 4 2 70 .		67 2
184				_	
D553	-	ERB43-04V	A 8 0 5885 21	1	Astronomic 1
	Δ	OR ES1V		+	
D554	\perp	MA167		1	
D555		MA185	Eller March List Confier	1	
D558	Δ	ERB43-04V		1	
344	Δ	OR ES1V	374 43		with the
0560	Δ	ERB43-04V	Control Service (Add)	1	
-34	-	OR ES1V	Joseph Walth (Gall	of gent	g (1) (1) (1)
0561	1	MA167		1	
D601-603	+-	MA165		3	
	-	MAIDO	 	1 3	
327	-		AND A STATE OF THE	-	
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
			RESISTORS		1
R023		ERDS2TJ122	় আন্তর্ক নগান্য পাছত্ত্ত 1.2	K 1	171
R024		ERDS2TJ103	rii tersheki ku se seliftir 10	K 1	17 y
R301		ERDS2TJ563	56	K 1	
R302		ERDS2TJ104	100	K 1	
R304	T	ERDS2TJ683	.A.G. A. TEO . 68	_	140
R305	+-	ERDS2TJ124	65,0,5,A 120		
R306	+	ERDS2TJ392	3.9		
R307	+			-	
	-	ERDS2TJ183	1801 NOVE 18		
R311	╄	ERDS2TJ393	39		281 - 181 - Wi
R314	L	ERDS2TJ473	47		
R315	1	ERDS2TJ102	1	K 1	
R316	Т	ERDS2TJ392	- 3:00x******* 3.9	K 1	
R317	1	ERDS2TJ153	15	K 1	ordiyen terrestd
R318	T	ERDS2TJ104		K 1	Ent at
R320	t^-	ERDS2TJ392	3.9	+	
R324	+-	EVND8AA03B14	VARIABLE 10		
	+	EVND8AA03B13		_	
R325	+			_	
R327	-	ERDS2TJ103	10	_	
R333	1	ERDS2TJ182	·	K 1	
R335	L	ERDS2TJ821		0 1	
R336	Γ	ERDS2TJ182	17.8	K 4-1	1974 - 20 <i>6</i> 9
	_	ERDS2TJ471	47	0 1	got nor igen
R338	1			K Aa1	
R338	+	ERDS2TJ472			
R338 R342	+				t
R338 R342 R344		ERDS2TJ472	4.7	K 1	
R338 R342 R344 R345		ERDS2TJ472 ERDS2TJ271	4.7 27	K 1	
R338 R342 R344 R345 R349		ERDS2TJ472 ERDS2TJ271 ERDS2TJ103	4.7 27 480 (2844) 10	K 1 0 1 K 1	
R338 R342 R344 R345 R349 R372	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ER02CJP2R2S	4.7 27 450 (0444) 10 FUSE 4602W 2./	K 1 0 1 K 1 2 1	
R338 R342 R344 R345 R349 R372	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 EROS2TJP2R2S ERDS2TJ123	4.7 27 650 06440 10 FUSE 6672W 2.	K 1 0 1 K 1 2 1 K 1	Jan 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
R338 R342 R344 R345 R349 R372	A	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ER02CJP2R2S ERDS2TJ123 ERDS2TJ123	4.7 27 480 (00,400,000) 10 FUSE (46,900) 112 (46,900) 22	K 1 0 1 K 1 2 1 K 1 K 1	00 19 1981 05 - 880
R338 R342 R344 R345 R349 R372 R384 R385	A	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 EROS2TJP2R2S ERDS2TJ123	4.7 27 480 (00,400,000) 10 FUSE (46,900) 112 (46,900) 22	K 1 0 1 K 1 2 1 K 1	Jan 11 17 1760
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395	A	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERQCJP2R2S ERDS2TJ123 ERDS2TJ123 ERDS2TJ223	4.7 27 480 (00,400,000) 10 FUSE (46,900) 112 (46,900) 22	K 1 0 1 K 1 2 1 K 1 K 1	087880 087880
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395	A	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ER02CJP2R2S ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ103 ERDS2TJ104	4.7 27 27 28日 (10年間の) 10 FUSE (24年日) 12 (44年日) 22 (44年日) 22 (44年日) 24年日 10 (100年日) 100	K 1 0 1 K 1 2 33312 K 3312 K 3312 K 3312 K 3312 K 3312 K 3312	04 14 785 20 14 785
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERDS2TJ103 ERDS2TJ123 ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ104 ERDS2TJ1681	4.7 27 27 FUSE 242 2W 2V 345円の 12 244円の 22 244円の 100 100 68	K 1 0 1 1 K 1 2 1 1 K 1 K 1 1 K 1 K 1 1 K	04 14 785 20 14 785
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401 R402	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERO2CJP2R2S ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ103 ERDS2TJ103 ERDS2TJ104 ERDS2TJ681 ERDS2TJ333	4.7 27 28 280 20 4850 10 FUSE 285 2W 2V 3850 12 3850 10 100 100 68 3.800 33	K 1 0 1 K 1 2 1 K 1 K 1 K 1 K 1 K 1 K 1 K 1 K 1 K 1 K	199
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R401 R402 R409	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERO2CJP2R2S ERDS2TJ123 ERDS2TJ123 ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ104 ERDS2TJ681 ERDS2TJ333 ERDS2TJ333 ERDS2TJ373	4.7 27 28 280 20 40 40 20 EUSE 28 27 28 21	K 1 0 1 K 1 2 1 K 1 K 1 K 1 K 1 K 1 K 1 K 1 K 1 K 1	199
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401 R402 R408	A	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERQCZJP2R2S ERDS2TJ123 ERDS2TJ23 ERDS2TJ103 ERDS2TJ104 ERDS2TJ681 ERDS2TJ681 ERDS2TJ681 ERDS2TJ233 ERDS2TJ233 ERDS2TJ681	4,7 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28	K 1 0 1 1 K 1 2 K 1 1 K 1 1 K 1 K 1 K 1 K 1 K	199
R338 R342 R344 R345 R349 R372 R384 R385 R384 R385 R394, 395 R396 R401 R402 R409 R410	A	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERO2CJP2R2S ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ104 ERDS2TJ04 ERDS2TJ333 ERDS2TJ333 ERDS2TJ273 EVMD8A403B15 ERDS2TJ223	4.7 27 27 FUSE	K 1 0 1 1	199
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401 R402 R409 R410		ERDS2TJ472 ERDS2TJ271 ERDS2TJ271 ERDS2TJ103 EROS2TJ103 ERDS2TJ103 ERDS2TJ104 ERDS2TJ104 ERDS2TJ04 ERDS2TJ073 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ272	4,7 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28	K 1 0 1 1	199
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401 R402 R409 R410 R411		ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERO2CJP2R2S ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ104 ERDS2TJ04 ERDS2TJ333 ERDS2TJ333 ERDS2TJ273 EVMD8A403B15 ERDS2TJ223	4.7 27 27 FUSE	K 1 0 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	199
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401 R402 R409 R410 R411	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERDS2TJ103 ERDS2TJ123 ERDS2TJ123 ERDS2TJ123 ERDS2TJ104 ERDS2TJ681 ERDS2TJ681 ERDS2TJ273 EVND8AA03B15 ERDS2TJ273 EVND8AA03B15 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ273 ERDS2TJ272 ERDS1FJ1R2P	4.7 27 27 27 28 28 28 27 38 27 27 27 38 37 37 40 100 68 9.8 3.8 3 33 27 VARIAVLE 100 22 3 3 3 2 2 7 VARIAVLE 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	K 1 0 1 1 1 2 2 3 3 1 2 3 3 1 2 3 3 1 2 3 3 1 3 3 3 3	199
R338 R342 R344 R345 R345 R372 R384 R385 R394, 395 R396 R401 R402 R409 R410 R411 R411 R413 R414		ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 ERDS2TJ103 ERDS2TJ123 ERDS2TJ123 ERDS2TJ103 ERDS2TJ103 ERDS2TJ104 ERDS2TJ681 ERDS2TJ681 ERDS2TJ333 ERDS2TJ273 EVND8AA03B15 ERDS2TJ273 ERDS2TJ272 ERDS1FJ1R2P OR EROS1FPJ1R2P	4.7 27 27 10 10 10 10 10 10 10 1	K 1 0 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	98
R338 R342 R344 R345 R349 R372 R384 R385 R394, 395 R396 R401 R402 R409 R410 R411	Δ	ERDS2TJ472 ERDS2TJ271 ERDS2TJ103 EROS2TJ103 EROS2TJ123 ERDS2TJ123 ERDS2TJ123 ERDS2TJ104 ERDS2TJ104 ERDS2TJ681 ERDS2TJ333 ERDS2TJ273 EVND8AA03B15 ERDS2TJ273 ERDS2TJ273 ERDS2TJ272 ERDS1FJ1R2P	4.7 27 27 28 28 28 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	K 1 0 1 1 2 1 1 2 1 2 1 2 2 1 1 2 1 2 1 2	98

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
R418		ERDS2TJ474	470		VO.
R422	Δ	ERD25FJ101P	100	1301-2	AND THE
	Δ	OR ERD25FPJ101V	s 1907 GMCYS A 1 1 1 100	25817	1909) 1905
R425	1	ERDS2TJ564	/560N	1010	808 1 Ma
R427		ERDS2TJ1R5	5 (a46 M20) (a122	27418	103 - 100
R441		ERDS2TJ472		o∄- 1 (9	egin ni
R443		ERDS2TJ153	151	07:1	(12) (4)
R445		ERDS2TJ101	183 183 100	0.45	
R447		ERDS2TJ823	82)		611
R448		ERDS2TJ474	7 471 VAS 501 4701	1	mer in the
R501		ERDS2TJ331	330	20 1 0	Y. (
R502		ERDS2TJ332	3. 31	. 1	
R503	Δ	ERD25FJ681P	114,8081.74,63 680	规增换	\$04: 1-50
	Φ	OR ERD25FPJ681V	. FVIS.E.U. 680	Mary 19	107
R504		ERDS2TJ153	15)	309 1 13	spa 1 - 1 - 1 - 1 - 1
R505	Φ	ERDS1FJ221P	220 1/2W 220	FER1.8	1081 . 415.
	$ \Phi $	OR ERDS1FPJ221V		18 organ	entra de la companya
R506	1	ERDS2TJ182		2.47	American Contraction
R507	Λ	EROS2TKF1502	METAL FILM +-1% 103,001 306/15)	(A)	
	Φ	OR KROS2TKF1502			#4 M
R508	Δ	ERD25FJ100P		14310	WC
	Δ	OR ERD25FPJ100V	10 3,7703 3	8000	\$0.2° (980)
R509	-	ER0S2TKF3162		964	
	Δ	OR KROS2TKF3162	METAL FILM +-1% 31.6	1000	
R511	Δ	ERG12SJ273P	METAL OXIDE 278	144 c	ari 144
R512		ERDS2TJ273		Tight 8	1041 1 18a.
R513		ERDS2TJ562	5,6)	1.15	#161 1060
R515		ERG2SJU392V	METAL OXIDE 2W 3.9M	::1:	
	Δ	OR ERG2SJ392H	METAL OXIDE 2W 3,9M	800	KT01 450
R516		ERG3ANU332H	METAL OXIDE 3W 3.3	1	194 T 185
R519		ERDS2TJ154	150	1/1	griff the same
R521		ERDS2TJ101	200 (1986)	- 1	U.S. (1.40)
R522		ERDS2TJ103	. 40)	1	tarji k
R523		ERDS2TJ333	331	1.	- 1. V.
R524		ERDS2TJ223	22	1	7. 7. 7.
R525		ERDS2TJ822	: 186 mag	1	ás.
R526		ERDS2TJ155	1.5%	-	
R527	Δ	ERG1SJU102V	METAL OXIDE 1W 1F	-	75 27V
		OR ERGISJ102P	METAL OXIDE BEASENIW 5 18	-terio	173. 155
R528	T	ERDS2TJ272	2.71	1	
R530	Δ	ERG2ANJU331V	METAL OXIDE 2W 330	301	MALE NAME
			METAL OXIDE 2W 330	34,857	20. E.
R531		ERDS2TJ105	Sabrin al	110	
R536		ERDS2TJ183	31 3 34 34 545 188		KG Y
R537		ERDS2TJ821	820	_	
R539		ERDS2TJ561		1	071 1750
R543	1	ERDS2TJ183	188	4816	(A) (Bat)
R545	\top	ERDS2TJ680	44.65	-	2011 - 17.0
R551		ERDS2TJ103	10k	1941	2001 . 1997
R552	\top	ERDS2TJ273	5 / / PEC/PE 278	88818	67 A
R553	1	ERDS2TJ102	in kar dala Khagjatha h adil i	-	
R554		ERDS2TJ103	27 April 45 24 25 24 10k	-	MA!
R555, 556		ERDS2TJ823	82K	_	Vag 1 Sept
R558	A	ERG2ANJU561V			rejas ass
		OR ERG2ANJ561H	METAL OXIDE 2W 560		PAR A
R601-603	1	ERDS2TJ331			ranga 80
R604		ERDS2TJ334	3300		(30) ; (40 -708)
R605		ERDS2TJ564	0001	*19	
R607		ERDS2TJ152	0001	7818	
R608		ERDS2TJ102		107	
R609		ERDS2TJ222		25 12	
R610	1	ERDS2TJ102		प्रदर्श से	
R614	\vdash	ERDS2TJ222		1081 A	
R621	+	ERDS2TJ273		0.13	
R622	+	ENOUZ TOZTO		1831 B	
R623	-	ERDS2TJ183		1413	
R624	-	ERDS2TJ273			001 30 0 80 001 30 0 80
R625	+	ERDS2TJ392			(10) (10) (10) (10)
R626	-	ERDS2TJ393			201.5.
R627	+				
R628, 629	+	ERDS2TJ392	010	-	967 E.
R630	1	ERDS2TJ273	27K		<u> </u>
	-	ERDS2TJ102	18	-	
R631	-	ERDS2TJ392	4.5°05 3.9K		147 - 147°.
	+			197507	
	+			(0.40)	[A 01]
0001	+	COT 141/2122	CAPACITORS	25.5	
C301	-	ECEA1HU3R3	ELECTROLYTIC 50V 3.3	-	lates a
C311	-	ECEA1EU4R7	ELECTROLYTIC 25V 4.7		311
		ECEA1HU010	ELECTROLYTIC 50V 1	5710) ;:
C313	╀	ECEA1CU100	ELECTROLYTIC 16V 10	1	

(E8, E9, E35, E20, E41, E42, E43, E47, E49, E50, E57, E60, E61, E67, E70, E73)

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks	Ref. No.	T	Part No.	Part Name & Description	Pcs/ Set	Remarks
C315		VCYSARH220JC	CERAMIC +-5% 50V 22P	_							
C316	_	VCYSARH150JC	CERAMIC +-5% 50V 15P	_		NEAS	\vdash	00050055	CRYSTAL OSCILLATOR	.	
C401		ECEA1HGE1R5	ELECTROLYTIC 50V 1.5 ELECTROLYTIC 16V 470	_		X501 X601	+	CSB503F5		1	
C402 C406	Н	ECEA1CU471 ECKW1H122KB5	CERAMIC 50V 0.0012	1		X001	+	TSS816M		-	
C407		ECKW1H561KB5	CERAMIC 50V 560P	1			+				· · · · · · · · · · · · · · · · · · ·
C408		ECEA1HGE010	ELECTROLYTIC 50V 1	1			+		PIN HEADERS		
C409		ECEATVU101	ELECTROLYTIC 35V 100			PK1		VJPS0275	5P	1	
C410	П	ECKW1 H472KB5	CERAMIC 50V 0.0047	1		PK2		VJPS0177	7P	1	
C411		ECCW1H100DC5	CERAMIC +-10% 50V 10P	1		PK6		VJPS0268	2P	1	
C413		ECOM1H104KV	POLYESTER 50V 0.1	1		·					
C414		ECEA1 CU222	ELECTROLYTIC 16V 2.2K	1							
C415	_	ECEA1 HUOR1	ELECTROLYTIC 50V 0.1	1		ļ	1_		SWITCHES		
C416	Ш	ECOM1 H563KV	POLYESTER 50V 0,056	****		SW301	\vdash	EVQRBAL10	SERVICE SWITCH	1.	
C417	<u> </u>	ECEA1HU010	ELECTROLYTIC 50V 1	1			\vdash			<u> </u>	
C418	_	ECEAT VUT 01 ECKW1 H222KB5	ELECTROLYTIC	1			+		TRANSFORMER		
C429 C501	_	ECEATVS100B	ELECTROLYTIC 35V 10	+		T501	+	ETH19Y70AY	TRANSFORMEN	1	
0001		OR ECEATVUIOOB	ELECTROLYTIC 35V 10			T502	A	ETE19Z30AY		1	
		OR SCEATVS100B	ELECTROLYTIC 35V 10			T551 (E57)		TLF15624F1	FLYBACK TRANSFORMER	1	AKEI
		OR SCEATVUTOOB	ELECTROLYTIC 35V 10				Т				
C502		ECEA1CU471	ELECTROLYTIC 16V 470	1							
C503		VCYSARH561KB	CERAMIC 50V 560P	1					PRINTED CIRCUIT BOARD ASS	ЕМВ	LY
C504		ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	1			L				
C506		ECOM1 H473KV	POLYESTER 50V 0.047	1		E8	-	TNP73139AA	CRT C. B. A.	1	· AKEI
C507		ECEA1HU3R3	ELECTROLYTIC 50V 3.3			E9	A	TNP73140BB	TV POWER C. B. A.	1	AKEI
C508		ECOM1H103KV	POLYESTER 50V 0.01	1			-			\vdash	
C509		ECEA1 CU470	ELECTROLYTIC 16V 47	1			\vdash		West Language		
C510	1	ECKW2H681KB5 ECKW1H272KB5	CERAMIC 500V 680P CERAMIC 50V 0.0027	1		-	+		MISCELLANEOUS		
C511 C512		ECCW1H560JC5	CERAMIC +-5% 50V 56P	1		E41	+	TMM77412	CLAMPER	2	AKEI
C512		ECCW1H101JC5	CERAMIC +-5% 50V 100P	1		E47	+	TUC76677-2	HEAT SINK PLATE	1	ANET
C514	A	ECKC3D152KBN	CERAMIC 2KV 0.0015	1		E60	+	TUC77619	HEAT SINK PLATE	1	AKEI
0014		OR ECKC3D152KBP	CERAMIC 2KV 0.0015	Ι		E61	+	TUC77621	H-SUB HEAT SINK	1	AKEI
		OR TCKC3D152KBN	CERAMIC 2KV 0.0015			E20	1	TUC77622	V-SUB HEAT SINK	1	AKEI
C516	_	ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	1		E70	1	VJWS2AW220MM	FLAT CABLE 2P	1	AKEI
C520		ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	1		E67		VZFS0006	CLAMPER	2	
C521		ECEA1HU010	ELECTROLYTIC 50V 1	1		E50		XTV3+10G	TAPPING SCREW 3X10	1	
C522		ECKW1H103ZF5	CERAMIC +80%-20% 50V 0.01	1		E35		XYN3+F10S	SCREW WITH WASHER 3X10	1	
C523		ECEA1HU100	ELECTROLYTIC 50V 10	1		E49		XYN3+F12S	SCREW WITH WASHER 3X12	1	
C524	-	ECWH1 2H332JS	POLYESTER +-5% 1250V 0.0032	1			1				
	Δ	OR TCWH12H332JS	POLYESTER +-5% 1250V 0.0032	-			1		077004	_	
C525	Δ	ECOM2823KZW	POLYESTER 200V 0. 082	1			1		CRT C.B.A.		
C527		ECGF2H334JZ ECKW1H562KB5	POLYESTER +-5% 500V 0.33 CERAMIC 50V 0.0056	_			+		(A,B,C,D)		
C530 C531	\vdash	ECKW1H182KB5	CERAMIC 50V 0. 0036	-			╁		TRANSISTORS		
C532	\vdash	VCYSARH181KB	CERAMIC 50V 180P	1		0351-353	+	2SC1473(0, N, C)	INANSISTORS	3	
C551	-	ECKW2H221KB5	CERAMIC 500V 220P	1		4331-430	+	2001410 (0, 11, 0)		3	
C552	-	ECEA1EU101	ELECTROLYTIC 25V 100	_			+			-	
C554	Λ	ECWH1 2H682J5	POLYESTER +-5% 1250V 0.0068	_			+		RESISTORS		
-	1		POLYESTER +100%-0% 1250V 6800P			R351-353	Δ	ERG1ANJP153V	METAL OXIDE 1W 15K	3	-, -
		OR TCWH12H685J5	POLYESTER +-5% 1250V 0.0068					OR ERGIANJ153H	METAL OXIDE 1W 15K		
C558		ECEATVU101	ELECTROLYTIC 35V 100	_				OR KRG1ANJ153H	METAL OXIDE 1W 15K		·
C560	Φ	ECEA2ES100E	ELECTROLYTIC 250V 10			R354-356		ERD25TJ272	2. 7K		
	$ \Lambda $	OR ECEA2EU100E	ELECTROLYTIC 250V 10	-		R357-359	L	ERDS2TJ101	100	-	
C561	\triangle	ECEA2CU2R2B	ELECTROLYTIC 160V 2.2			R360-362	1	ERDS2TJ221	220	3	
C601-603	1	VCYSARH391KB	CERAMIC 50V 390P			R363	-	EVND1 AA00B32	VARIABLE 300		
C605	-	ECOM1H104KV	POLYESTER 50V 0.1	1		R364	-	ERDS2TJ101	100	_	
C606	-	ECOM1H153KV	POLYESTER 50V 0.015	-		R365	-	EVND1AA00B32	VARIABLE 300	1	
C607, 608	-	ECEA1 HU2R2	ELECTROLYTIC 50V 2.2	2		R366-368	+	ERDS2TJ122	1.2K	3	
C609	-	ECCW1H330JC5	CERAMIC +-5% 50V 33P CERAMIC +80%-20% 50V 0.01			R369-371	-	EVND1 AA00B53	VARIABLE 5K	3	
C610	+	ECKW1H103ZF5		1			-			-	
C611	\vdash	ECEA1HU2R2 ECEA1EU4R7	ELECTROLYTIC 50V 2.2 ELECTROLYTIC 25V 4.7				+		CAPACITORS	-	
C614	+	ECCW1 H560JC5	CERAMIC +-5% 50V 56P	-		C351	+	VCYSARH821KB	CERAMIC 50V 820P	1	
C615	+	ECCW1H150JC5	CERAMIC +-5% 50V 15P			C352, 353	-	VCYSARH681KB	CERAMIC 50V 680P	2	
C808	A	ECEA180V33WE	ELECTROLYTIC 180V 33	_		C354		ECKC3D102KB	CERAMIC 2KV 0.001	1	
C810	<u>A</u>		CERAMIC +-20% 125V 0.0033	_		C355	1	ECKW2H102KB5	CERAMIC 500V 0.001	1	
	A		CERAMIC +-20% 125V 0.0033	_			1				
	Δ	OR VCKS0009CF	CERAMIC +-20% 125V 0.0033								
	Ī						I		COILS		
	Γ					L351		TLT221K991K	220	1	
			COILS								-
L302	\Box	ELT10Z3C3		1							
L303	Ĺ	VLQSH02R101K	100				L		MISCELLANEOUS		
L501		ELH5L423		1			_				
ļ	$ \Phi $	OR TLH15694T				E42	-	TJS1A5081	CRT SOCKET	1	<u> </u>
L552	1	TSC925V		1	· · · · · · · · · · · · · · · · · · ·	E73	1	TMM77405	CLAMPER	1	
L601	-	VLQSH02R100K	. 10	1		E43	-	TXAJT01134	FOCUS/SCREEN COUPLER	1	AKEI
	_					E67	1	VZFS0006	CLAMPER	1	

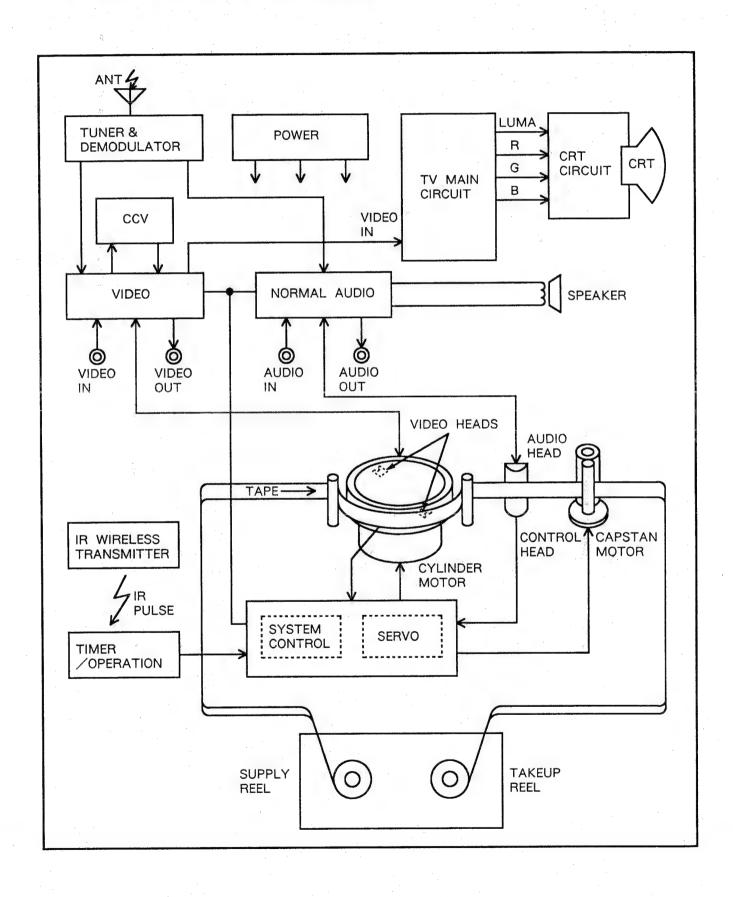
	Ц	Part No.	Part Name & Description	Pcs/ Set	Remarks
	Н				
	\blacktriangle	-	CRT C.B.A.		
			(E,F,G,H)		
	Ш				
	\vdash		TRANSISTORS		
0351-353	Н	2SC3063(R, L)		3	
	Н				
	Н		RESISTORS		
R351-353	Δ	ERG2ANJ123H	METAL OXIDE 2W 12K	3	
R354-356		ERD25TJ272	2. 7K	3	
R357-359		ERDS2TJ101	100	3	
R360-362	Ш	ERDS2TJ181	180	3	
R363		EVND1 AA00B32	VARIABLE 300	1	
R364	Н	ERDS2TJ101	100	-!-	
R365	Н	EVND1 AA00B32	VAR1ABLE 300 820	3	
R366-368 R369-371	\vdash	ERDS2TJ821 EVND1AA00B33	VARIABLE 3K	3	
N303-371	Н	EVIDIANOUSS	TANTAGE	<u> </u>	
	Н			\vdash	
	П		CAPACITORS		
C351-353		VCYSARH821KB	CERAMIC 50V 820P	3	
C354		ECKC3D102KB	CERAMIC 2KV 0.001	1	
C355	Ц	ECKW2H102KB5	CERAMIC 500V 0. 001	1	
	Н			\vdash	
	Н		MICCELLANEOUS	\vdash	
	Н		MISCELLANEOUS	\vdash	
E42	\vdash	TJS1A5050	CRT SOCKET	1	
E73	H	TMM77405	CLAMPER	1	
E43	H	TXAJT01134	FOCUS/SCREEN COUPLER	1	AKEI
E67		VZFS0006S	CLAMPER	1	711167
	A		TV POWER C.B.A.		
			(A,B,C,D)		
	L		WITTON ATTENDED		
10001 (500)	-	07020120	INTEGRATED CIRCUITS		
1C801 (E69)	Δ	S1R30130	IC BIPOLAR LINEAR ERROR	1	
	-		VOLTAGE DET		
	-			-	
	-		DIODES	-	
B008		155119		1	
D801-804	Δ	EM02BMV		4	
	-	OR ERC13-08V		•	
D851	Δ	ERPZ5B0M050F	THERMISTOR	1	
0001		OD VODCETE MOEA	THERMISTOR		
0031	Δ	OR VRPSFZ5JM050			
0031	Δ	UK YKPSFZSJMUSU		-	
Doar	Δ	OR VRPSFZ5JM050			
			RESISTORS		
R001	Δ	ERC12ZGK825C	SOLID +-10% 1/2W 8.2M	1	
R001	Δ Δ	ERC12ZGK825C OR ERC12ZGK825V	SOLID +-10% 1/2W 8.2M SOLID +-10% 1/2W 8.2M		
R001 R803	Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331	SOLID +-10% 1/2W 8.2M SOLID +-10% 1/2W 8.2M W FLMPRF 10W 330	1.	
R001	Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P	SOLID +-10% 1/2W 8.2M SOLID +-10% 1/2W 8.2M W FLMPRF 10W 330 1/2W 10K		
R001 R803 R804	A A A A A	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V	SOLID	1.	
R001 R803	A A A A A	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 EROS1FJ103P OR ERDS1FPJ103V ERQ14AJ470P	SOLID	1.	
R001 R803 R804	A A A A A	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V	SOLID	1.	
R001 R803 R804 R805 R806	Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2TJ224	SOLID	1. 1 1 1	
R001 R803 R804 R805 R806 R807	Δ Δ Δ Δ	ERC12ZGK825V OR ERC12ZGK825V ERF10ZJ331 EROS1FJ103P OR ERDS1FJJ103V ER014AJ470P ERDS2TJ224 ER014AJ390P	SOLID	1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808	Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ER032TJ224 ER014AJ390P ER02ABJP5R6S	SOLID	1. 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808	Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2TJ224 ER014AJ390P ER02ABJP5R6S ERF3AKR82	SOLID	1. 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808	Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2TJ224 ER014AJ390P ER02ABJP5R6S ERF3AKR82	SOLID	1. 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810	Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ER024AJ470P ER024AJ470P ER02ABJP5R6S ERF3AKR82 OR KRF3AKR82	SOLID	1 1 1 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808	<u>↑</u>	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ER024AJ470P ER024AJ470P ER024BJP5R6S ERF3AKR82 OR KRF3AKR82 VCKS0004	SOLID	1. 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810	Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2AJ95R6S ERF3AKR82 OR KRF3AKR82 VCKS0004 OR VCKS0004C	SOLID	1 1 1 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810	Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2TJ224 ER014AJ390P ER02ABJP5R6S ERF3AKR82 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004C	SOLID	1 1 1 1 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002	Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2TJ224 ER014AJ90P ER02ABJP5R6S ERF3AKR82 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004C OR VCKS0012	SOLID	1 1 1 1 1 1 1 1 1 2 2	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002	Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ERDS2TJ224 ERQ14AJ390P ERQ2ABJP5R6S ERF3AKR82 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004CF OR VCKS0012 ECKM2H472PU	SOLID	1 1 1 1 1 1 1 1 2 2 3	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002	Δ Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ER024AJ470P ER02AJ95R6S ERF3AKR82 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004C OR VCKS0012 ECKM2H472PU ECKM2H472PU	SOLID	1 1 1 1 1 1 1 2 2 3 1 1	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002 C801-803 C804 C805	Δ Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ERQ14AJ470P ERQ14AJ470P ERQ2ABJ470P ERQ2ABJ47882 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004CF OR VCKS0012F OR VCKS0012F ECCM2H472PU ECCM2H472PE ECET2DR221SW	SOLID	1 1 1 1 1 1 1 2 2 3 3 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002	Δ Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ER014AJ470P ER024AJ470P ER02AJ95R6S ERF3AKR82 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004C OR VCKS0012 ECKM2H472PU ECKM2H472PU	SOLID	1 1 1 1 1 1 1 1 2 2 3 3 1 1	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002 C801-803 C804 C805	Δ Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ERQ14AJ470P ERQ14AJ470P ERQ2ABJ470P ERQ2ABJ47882 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004CF OR VCKS0012F OR VCKS0012F ECCM2H472PU ECCM2H472PE ECET2DR221SW	SOLID	1 1 1 1 1 1 1 2 2 3 3 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002 C801-803 C804 C805	Δ Δ Δ Δ Δ Δ Δ Δ	ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ERQ14AJ470P ERQ14AJ470P ERQ2ABJ470P ERQ2ABJ47882 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004CF OR VCKS0012F OR VCKS0012F ECCM2H472PU ECCM2H472PE ECET2DR221SW	SOLID	1 1 1 1 1 1 1 2 2 3 3 1 1 1 1	
R001 R803 R804 R805 R806 R807 R808 R810 C001, 002		ERC12ZGK825C OR ERC12ZGK825V ERF10ZJ331 ER0S1FJ103P OR ERDS1FPJ103V ERQ14AJ470P ERQ14AJ470P ERQ2ABJ470P ERQ2ABJ47882 OR KRF3AKR82 VCKS0004 OR VCKS0004C OR VCKS0004CF OR VCKS0012F OR VCKS0012F ECCM2H472PU ECCM2H472PE ECET2DR221SW	SOLID	1 1 1 1 1 1 1 2 2 3 3 1 1 1 1	

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
PB2		VJPS0303	PIN HEADERS 3P	1	
OL.		757 00000			
F.444	Ļ		FUSE & PROTECTOR		
F001	Δ	XBA1C40NU100	FUSE 125V 4A	1	
	Н			-	
			RELAY		
RL001	Δ	TSE1860-1	RELAY	1	
	\perp			\sqcup	
	-		MISCELLANEOUS	-	
E66-	-	TUC77616	GROUNDING PLATE	1	AKEI
E63	1	TUX77809	CLAMPER	1	AKEI
E15		VJSS0164	FUSE HOLDER	2	
E64		XTW3+10J	TAPPING SCREW 3X10	2	
E65	\perp	XYE3+EJ10	SCREW WITH WASHER 3X10	1	
E35		XYN3+F10S	SCREW WITH WASHER 3X10	1	
	A		TV POWER C.B.A.		
			(E,F,G,H)		
10001 (=00)	-	DTD00100	INTEGRATED CIRCUITS	.	
1C801 (E69)	1	S1R30130	IC BIPOLAR LINEAR ERROR VOLTAGE DET	1	
	+		TOLINGE DET	-	
				-	
			DIODES		
D008		188119		1	
D801-804		EM02BMV		4	
0051		OR ERC13-08V ERPF5B0M050K	TUEDALICTOR	1	4VE1
D851	+	OR TRPF5B0M050K	THERMISTOR THERMISTOR	-	AKEI
	141	OK THE EDOMOSOK	THEORESTON	-	
				$\neg \uparrow$	
			RESISTORS		
R001	-	ERC12ZGK825C	SOLID +-10% 1/2W 8.2M	1	
		OR ERC12ZGK825V	SOLID +-10% 1/2W 8.2M	_	
R803 R804		ERF15ZJ181	W FLMPRF 15W 180 1/2W 8.2K	1	
N004		OR ERDS1FPJ822V	1/2W 8.2K 1/2W 8.2K	1	
R805	_	ER014AJ470P	FUSE 47	1	
R806		ERDS2TJ224	220K	1	
R807	-	ER014AJ390P	FUSE 39	1	
R808		ER03CJ5R6H	FUSE 3W 5.6	. 1	
R810		ERF3AKR82	W FLMPRF +-10% 3W 0.82 W FLMPRF +-10% 3W 0.82	. 1	
	4	OR KRF3AKR82	W FLMPRF +-10% 3W 0.82	-	
	-		· · · · · · · · · · · · · · · · · · ·	-	· · · · · · · · · · · · · · · · · · ·
			CAPACITORS		
C001		ECKCNS223ZV	CERAMIC +80%-20% 125V 0.022	1	
	-	OR ECKDNS223ZV	CERAMIC +80%-20% 125V 0, 022	\Box	
C002		VCKS0004	CERAMIC +80%-20% 125V 0.01	1	
		OR VCKS0004CF	CERAMIC +80%-20% 125V 0. 01 CERAMIC +80%-20% 125V 0. 01		
	+	OR VCKS0012	CERAMIC +80%-20% 125V 0. 01	-	
C801-803	143	ECKM2H472PE7	CERAMIC +100%-0% 500V 0.0047	3	
C804		ECKM2H472PE	CERAMIC +100%-0% 500V 0.0047	1	
C805	Φ	ECET2PR471SW	ELECTROLYTIC 180V 470	1	
C806	1	ECEA2EU220	ELECTROLYTIC 250V 22	- 1	
4.	H			-	
	\vdash		COILS	\vdash	
L801	A	ELF18D650C	65	1	
L802	-	VLQS7A220M	+-20% 22	1	
220			PIN HEADERS		
PB2	-	VJPS0303	3P	1	
	\vdash			-	
	+		FUSE & PROTECTOR	-	
F001	Δ	XBA1C40NU100	FUSE 125V 4A	1	
			1,541 47	+	
			RELAY		
RL001	ł A	TSE1860-1	RELAY	1	

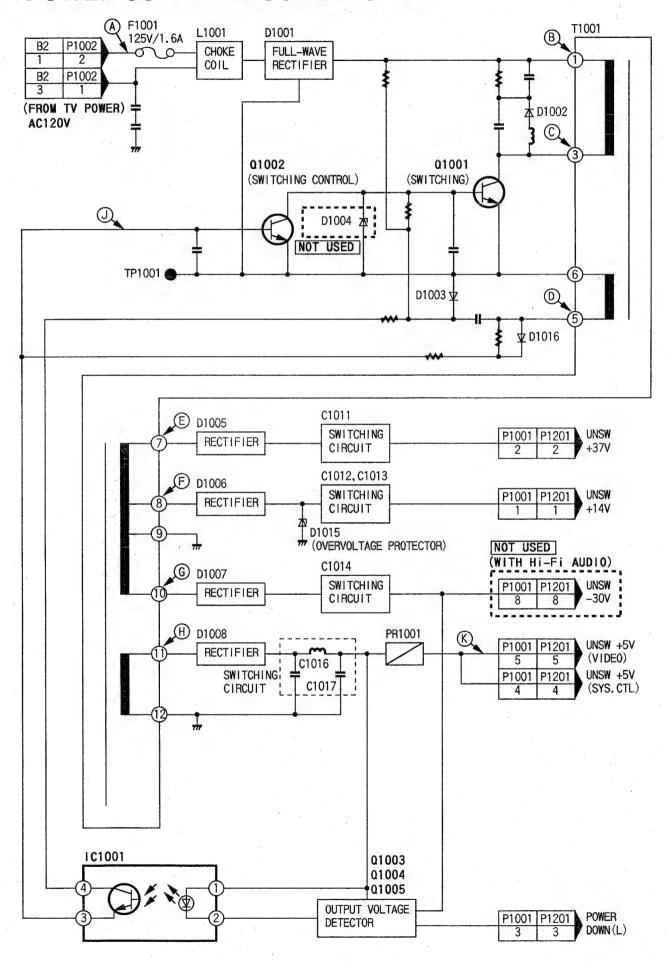
Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		MISCELLANEOUS		
62	TMM77413	CLAMPER	1	AKEI
E66	TUC77603-1	GROUNDING PLATE	1	AKEI
63	TUX77809	CLAMPER	1	AKEI
£15	VJSS0164	FUSE HOLDER	2	
E64	XTW3+10J	TAPPING SCREW 3X10	2	•
E65	XYE3+EJ10	SCREW WITH WASHER 3X10	1	
E35	XYN3+F10S	SCREW WITH WASHER 3X10	1	
			-	
		ELECTRICAL PARTS		
		LOCATED ON CHASSIS		
SW1551 (E27)	VSSS0129	MODE SELECT SWITCH	1	
E46	VEKS4798	SAFETY TAB SWITCH UNIT	1	
E23	VEPS0482A1	FE HEAD C. B. A. UNIT	1	
E24	VJBS00949	LOADING MOTOR P. C. B. FLAT CABLE 7P	1	
E25	VJWS7AB107LL	FLAT CABLE 7P	1	
E55	VJWS7AN120BB (A, B, C, D)	TENT VADEL (I		
E55	VJWSBAB110BB	FLAT CABLE 11P		
-	(E, F, G, H)			
E56	VJWS7AB110BB	FLAT CABLE 7P	1	
	(A, B, C, D)			
		"E"ITEM NUMBERS IN THE		
		ELECTRICAL PARTS LIST		
		LLLO INIOAL I AITIO LIOI		
E1	VEPS02223A1	MAIN C. B. A.		
E1	VEPS02223B1	MAIN C. B. A.		
E1	VEPS02223C1	MAIN C. B. A.		
E2	VEPS01039A1	POWER SUPPLY ASS'Y		
E3	VEPS07571A1	OPERATION I C. B. A.		
E3 .	VEPS07573A1	OPERATION I C. B. A.		
E4	VEPS07572A1	OPERATION 11 C.B.A.		
E4 E5	VEPS07574A1 VEPS02178A1	OPERATION 11 C.B.A. CAPSTAN MOTOR DRIVE C.B.A.		
E6	VEPS0563CA1	HEAD AMP ASS'Y		
E6	VEPS0564CA1	HEAD AMP ASS'Y		
E7	TNP71920CC	TV MAIN C. B. A.		
E7	TNP71922CC	TV MAIN C. B. A.		
E8	TNP73135AA	CRT C. B. A.		
E8	TNP73139AA	CRT C. B. A.		
E9	TNP731368B	TV POWER C. B. A.		
E9	TNP73140BB	TV POWER C. B. A.		
E10	VEPS03125C2	CCV C. B. A.		
E11	VJHS0279	PIN JACK		
E12	VE0S0562	UHF/VHF TUNER/TV DEMODULATOR		
E13	VGPS2941	ANT TERMINAL PLATE		
E13	VGPS2943	ANT TERMINAL PLATE		
E14	VSCS1984	SHIELD CASE -TOP		
E15	VJSS0164	FUSE HOLDER		
E16	VSCS2036	SHIELD CASE -BODY		
E19	SPS-420-2-B	IR WIRELESS RECEIVING DETECTOR		
E20	TUC77622	V-SUB HEAT SINK		
E21	VMXS0583	LED SPACER		
E23	VEPS0482A1 VJBS00949	FE HEAD C. B. A. UNIT	\vdash	
E24 E25	VJWS7AB107LL	LOADING MOTOR P. C. B. FLAT CABLE 7P	-	
E27	VSSS0129	MODE SELECT SWITCH	-	
E29	VEKS5200	PHOTO SENSOR UNIT	-	
E30	VEKS5201	SENSOR LED UNIT		
E35	XYN3+F10S	SCREW WITH WASHER 3X10		
E39	VMXS0575	LED SPACER		
E41	TMM77412	CLAMPER		
E42	TJS1A5050	CRT SOCKET		
E42	TJS1A5081	CRT SOCKET		
E43 E45	TXAJT01134 VMTS0035	FOCUS/SCREEN COUPLER CUSHION		
E46	VEKS4798	SAFETY TAB SWITCH UNIT		
E47	TUC76677-1	HEAT SINK PLATE		
E47	TUC76677-2	HEAT SINK PLATE		
E48	XYN3+F6S	SCREW WITH WASHER 3X6		
E49	XYN3+F12S	SCREW WITH WASHER 3X12		
	XTV3+10G	TAPPING SCREW 3X10	-	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
E51	VHDS0276	SCREW 3X10		
E52	VHDS0319	SCREW 3X12		
E53	2SD1555LBMTV	4		
E54	LA7835	IC BIPOLAR LINEAR VERTICAL OUT		
E54	LA7835-TA	IC BIPOLAR LINEAR VERTICAL OUT		<u> </u>
E55	VJWSBAB110BB	FLAT CABLE 11P		
E55	VJWS7AN120BB	FLAT CABLE 7P		
E56	VJWS7AB110BB	FLAT CABLE 7P		
E57	TLF14767F	FLYBACK TRANSFORMER		
E57	TLF15624F1	FLYBACK TRANSFORMER		
E59	TMM16480-1	CLAMPER		
E60	TUC77619	HEAT SINK PLATE		
E61	TUC77621 TMM77413	H-SUB HEAT SINK	_	
E62 E63	TUX77809	CLAMPER CLAMPER	-	
E64	XTW3+10J	TAPPING SCREW 3X10	-	
E65			_	
E66	XYE3+EJ10	SCREW WITH WASHER 3X10		
	TUC77603-1	GROUNDING PLATE		
E66 E67	TUC77616	GROUNDING PLATE		
	VZFS0006	CLAMPER		
E67	VZFS0006S	CLAMPER		
E68	VEKS5221	LUG ASS'Y		
E69	STR30130	IC BIPOLAR LINEAR ERROR		
F70		VOLTAGE DET		
E70	VJWS2AW220MM	FLAT CABLE 2P		
E73	TMM77405	CLAMPER		
E74	VMTS0094	CUSHION		
E78	VSCS2007	SHIELD CASE -TOP		
E79	VSCS2008	SHIELD CASE -BOTTOM		
E81	VEPS04117A1	AUDIO/VIDEO JACK C. B. A.		
		**		
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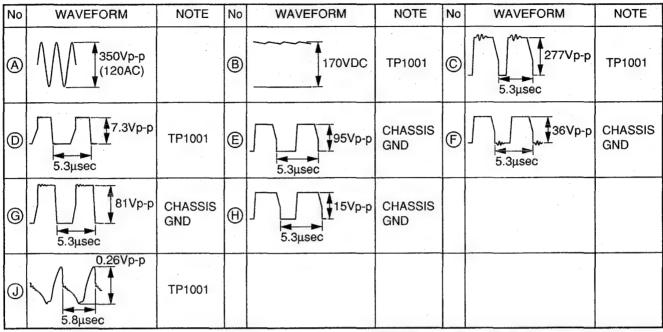
VII. BLOCK DIAGRAMS OVERALL BLOCK DIAGRAM



POWER SUPPLY BLOCK DIAGRAM



WAVEFORM OF POWER SUPPLY STAGE



NOTE: WAVEFORMS MEASURED IN STOP MODE.

POWER SUPPLY CHECKING PROCEDURE 1

SYMPTOM	FLOW OF TROUBLESHOOT—▶									
	CHECK POINT	®	Ē	Ē	G	\oplus				
No Power (Secondary	IF NO.	1			}					
circuit)	CHANGE	PR1001		* NO	TĚ1		* NOTE2			

^{*} NOTE1: If voltage is not correct, check primary circuit.

^{*} NOTE2: If all voltage is correct, check System Control circuit or adjust Gear phase.

SYMPTOM		FLOW OF TROUBLESHOOT—									
	CHECK POINT	A	B	©	0	(J)					
No Power (Primary	IF NO.	+			\						
circuit)	CHANGE	* NOTE1		F1001 Q1001 Q1002	* NOTE2	·					

^{*} NOTE1: Check TV Power Circuit or AC cord.

^{*} NOTE2: Change Q1001, Q1002 and F1001 at the same time.

SYMPTOM		FLOW OF TROUBLESHOOT——										
	CHECK POINT											
	IF NO.											
	CHANGE								,			

NOTE: Please use blank brackets to note additional information.

POWER SUPPLY CHECKING PROCEDURE 2

(1). SHORT-CIRCUIT AND REPLACEMENT PARTS ON POWER LINE.

	CONDITION OF SHORT-CIRCUIT	DAMAGEABLE PARTS BY SHORT-CIRCUIT
(1)	5V ➡ GND	*PR1001, *D1008, Q1005
(2)	37V ➡ GND	*D1005, *R1010
(3)	14V → GND 12V → GND	D1006, *D1015, Q1201, *Q1202, R1209 D1201, D1202, D1203, D1204, C1012, *PR1203
(4)	-30V ⇒ GND	*R1011, *D1007
(5)	37V ➡ 14V	D1006, *D1015, Q1201, *Q1202 D1201, D1202, D1203, D1204, *PR1203
(6)	-30V → 5V	REPLACE THE ALL OF PARTS OF (1) AND (4)
(7)	14V ➡ 12V	*Q1201, *Q1202, D1201, D1202, D1203, D1204, *PR1203
(8)	37V → POWER DOWN(L)	*Q1005

^{*}NOTE1: When parts are short circuited, supplying the Power for a long time may cause the fuse to blow.

(2). IN CASE OF FUSE(F1001) BLOW.

Replace Parts F1001, Q1001, Q1002, D1001(Very rarely has problems), C1012, D1015. Cause by It may be caused by a short-circuit of 5V or 14V.

(3). JUST AFTER TURNING POWER ON, ABNORMAL NOISE CAN BE HEARD FROM POWER SUPPLY UNIT.

Replace Parts D1015, D1008, D1007, R1011, C1012.

Cause

It may be caused by a short-circuit of 5V, -30V, 14V.

In such a condition, supplying the Power for a long time causes the fuse to blow.

^{*}NOTE2: In case of trouble on Power Pack only, no need to check 1200 series parts.

^{*}NOTE3: Parts with * mark are most susceptible to damage in case of short circuit. Please check them first.

WAVEFORM OF VIDEO STAGE

- *NOTE: 1. The measurement mode of the waveforms in brackets on this chart is Record and Playback modes with NTSC color bar signal.
 - 2. Please use blank brackets to note additional information.

No	WAVEFORM	NOTE	No	WAVEFORM	NOTE	No.	WAVEFORM	NOTE
(A)	1.0Vp-p	REC	B	5Vp-p	LINE(H) /TUNER(L)	©	0.38Vp-p	
(D)	2.0Vp-p	REC/P.B	Ē	2.0Vp-p	REC/P.B	Ē	1Vp-p	REC
\oplus	5Vp-p		①	0.21Vp-p	REC (SP/LP	0	0.27Vp-p	P.B
			J		/SLP)			
	0.24Vp-p	REC (SP/LP /SLP)		4Vp-p V	STILL SP			
P	"A"	P.B SP "A"= 0.49Vp-p LP "A"=	0	4Vp-p	CUE/REV			
	<u></u>	0.33Vp-p SLP "A"= 0.25Vp-p		5Vp-p	PB (SLP(H))			
				<u></u> 1.2∨p-p	PB (SP(L))			
a	0.4Vp-p	P.B	Э	0.54Vp-p	P.B			
0	"A" 1	REC "A"= 0.5Vp-p	(1)	0.3Vp-p	REC/P.B	e	5Vp-p	REC/P.B
	<u>▼ </u>	P.B "A"= 0.6Vp-p						
1	4Vp-p		(e)	ARTIFICIAL V-SYNC ARTIFICIAL H-SYNC	CUE/REV /SLOW			
			9	5Vp-p	/STILL			
						-		

VIDEO CHECKING PROCEDURE

SYMPTOM		FLOW OF TROUBLESHOOT									
	CHECK A D IF NO. IF NO.		(D) (E)		TV						
			Ų	•			-				
NO PIX	CHANGE	* NOTE1	IC3001 * NOTE2	IC3301 CCV Circuit	* NOTE3						

- * NOTE1: Check Tuner/Demodu or Video In Terminal and signals (B).
- * NOTE2: Check signals EE(H) /VV(M) /Trick(L).
- * NOTE3: Check TV Main Circuit or Video Out Terminal.

SYMPTOM		FLOW OF TROUBLESHOOT—►											
	CHECK POINT	A	A F P H		⊕	①	(HEAD					
	IF NO.				\$	†		4					
NO REC	CHANGE	* NOTE1	IC3001 * NOTE2		IC6001 * NOTE3	HEAD AMP		UPPER CYLINDER * NOTE4					

- * NOTE1: Check Tuner/Demodu or Video In Terminal and signals (B).
- * NOTE2: Check signals (c), EE(H) /VV(M) /Trick(L).
- * NOTE3: Check Cylinder FG/PG signal at pin 47 of IC6001.
- * NOTE4: Try head cleaning.

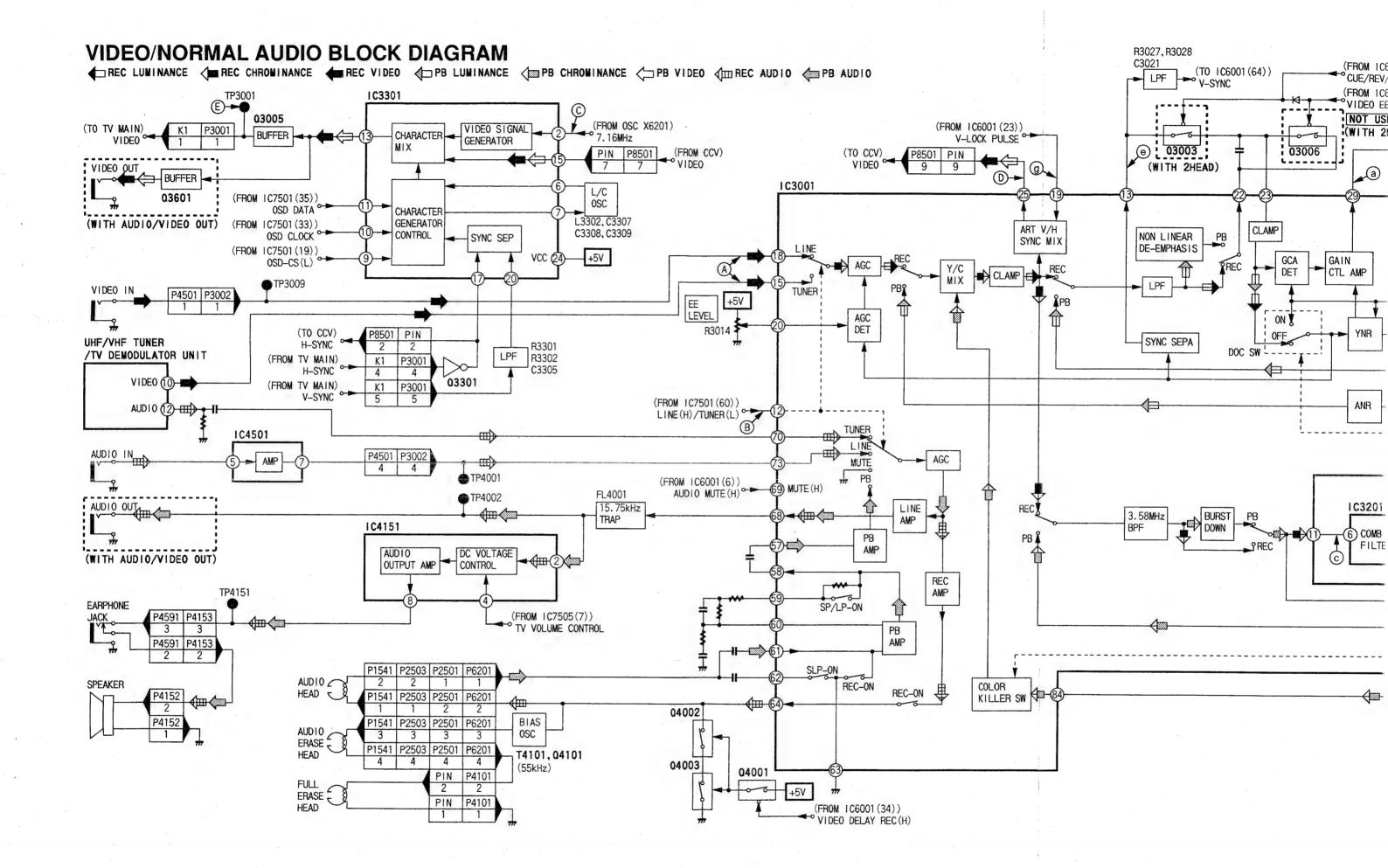
SYMPTOM		FLOW OF		The state of the s				
	CHECK POINT	P	©	0				
	IF NO.	•		ļ		·		
NO COLOR	CHANGE	HEAD AMP	IC32	201			and the control of th	

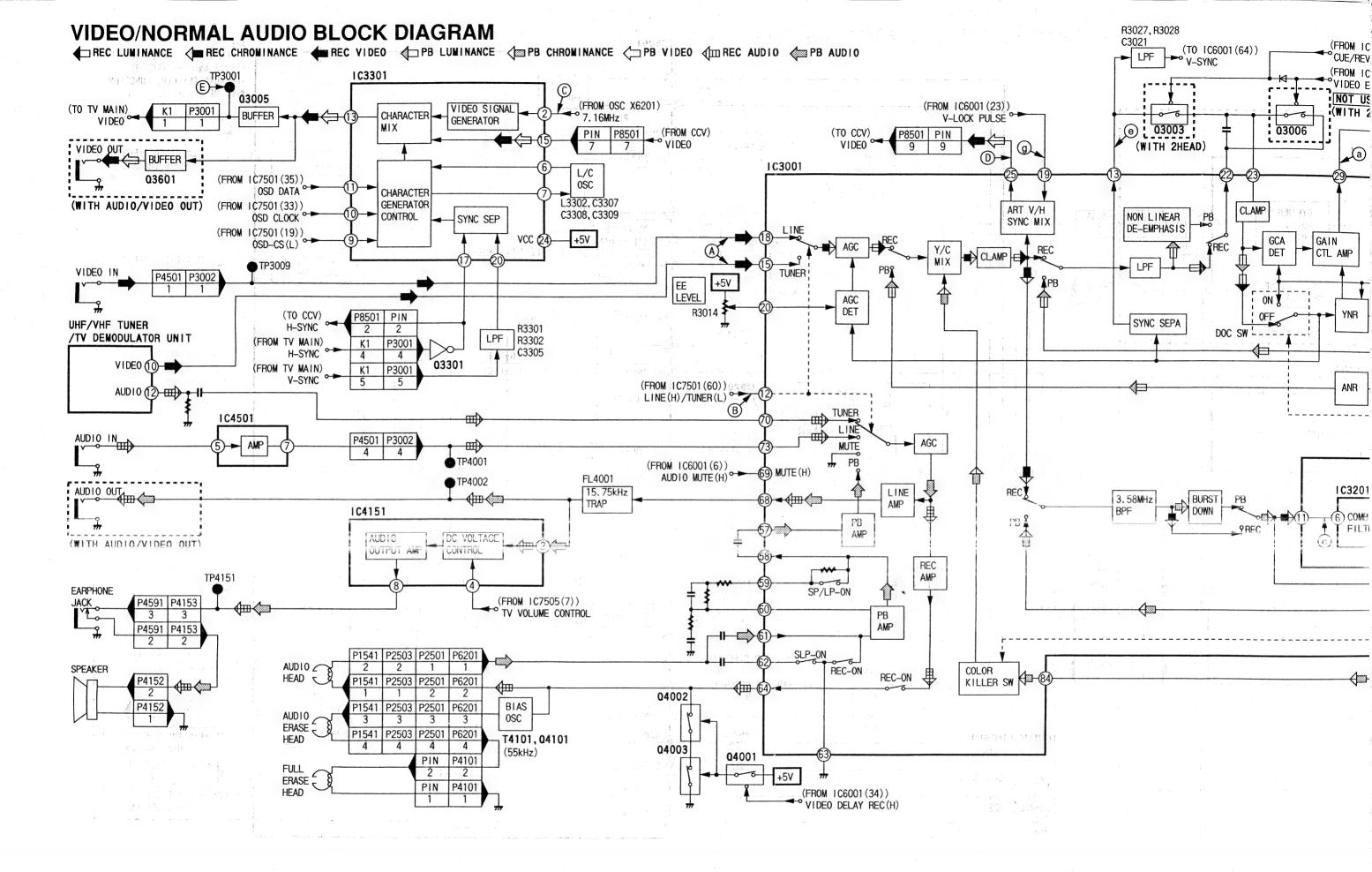
SYMPTOM		FLOW OF TROUBLESHOOT—						
	CHECK POINT	®	(L)	M	N	Θ	0	
	IF NO.			}		1	ļ	+
WIDE NOISE BAND	CHANGE		UPPER CYLINDER * NOTE1				TE2	SEE SERVO SECTION

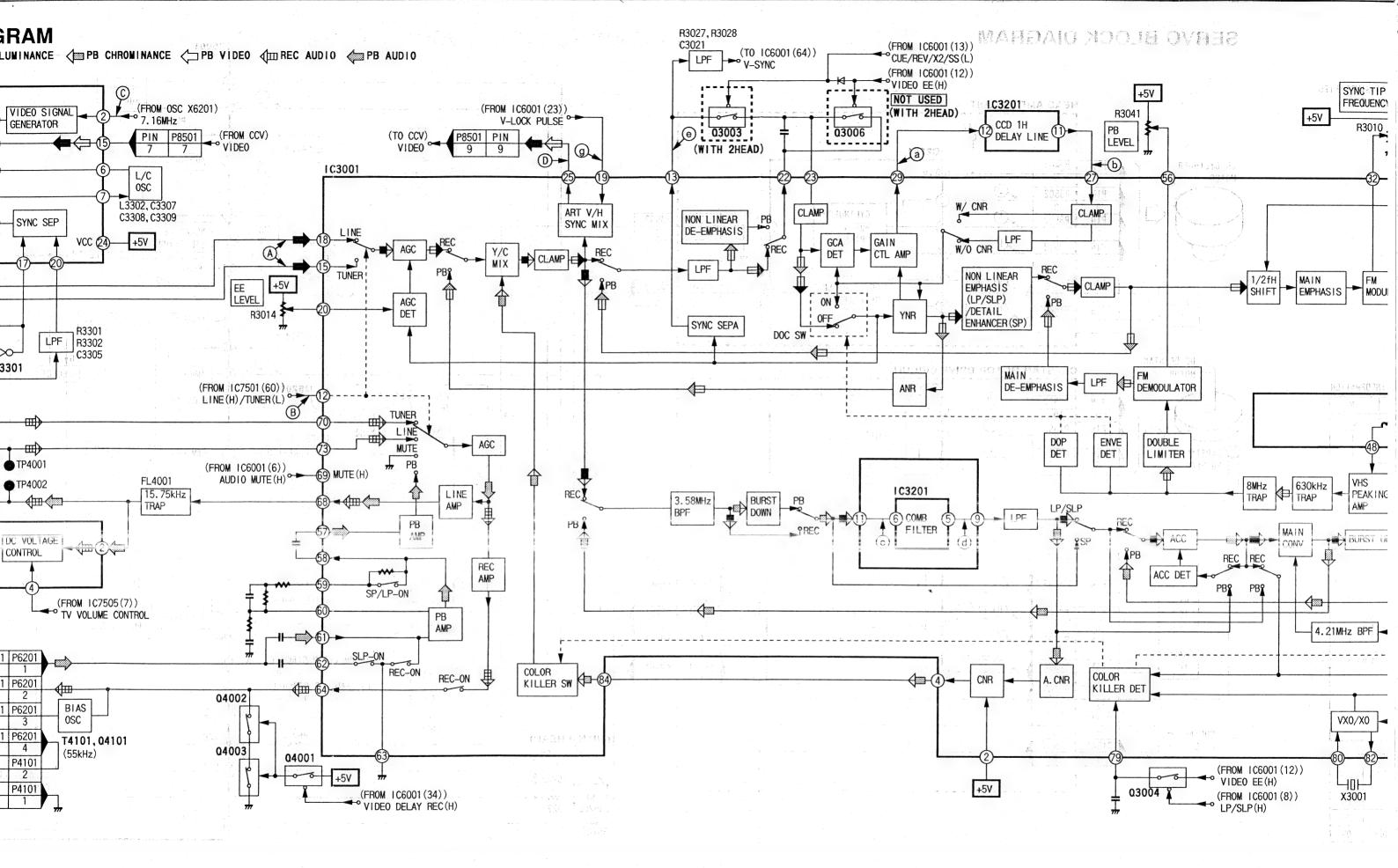
- * NOTE1: Try head cleaning.
- * NOTE2: Check Cylinder FG/PG signal at pin 47 of IC6001.

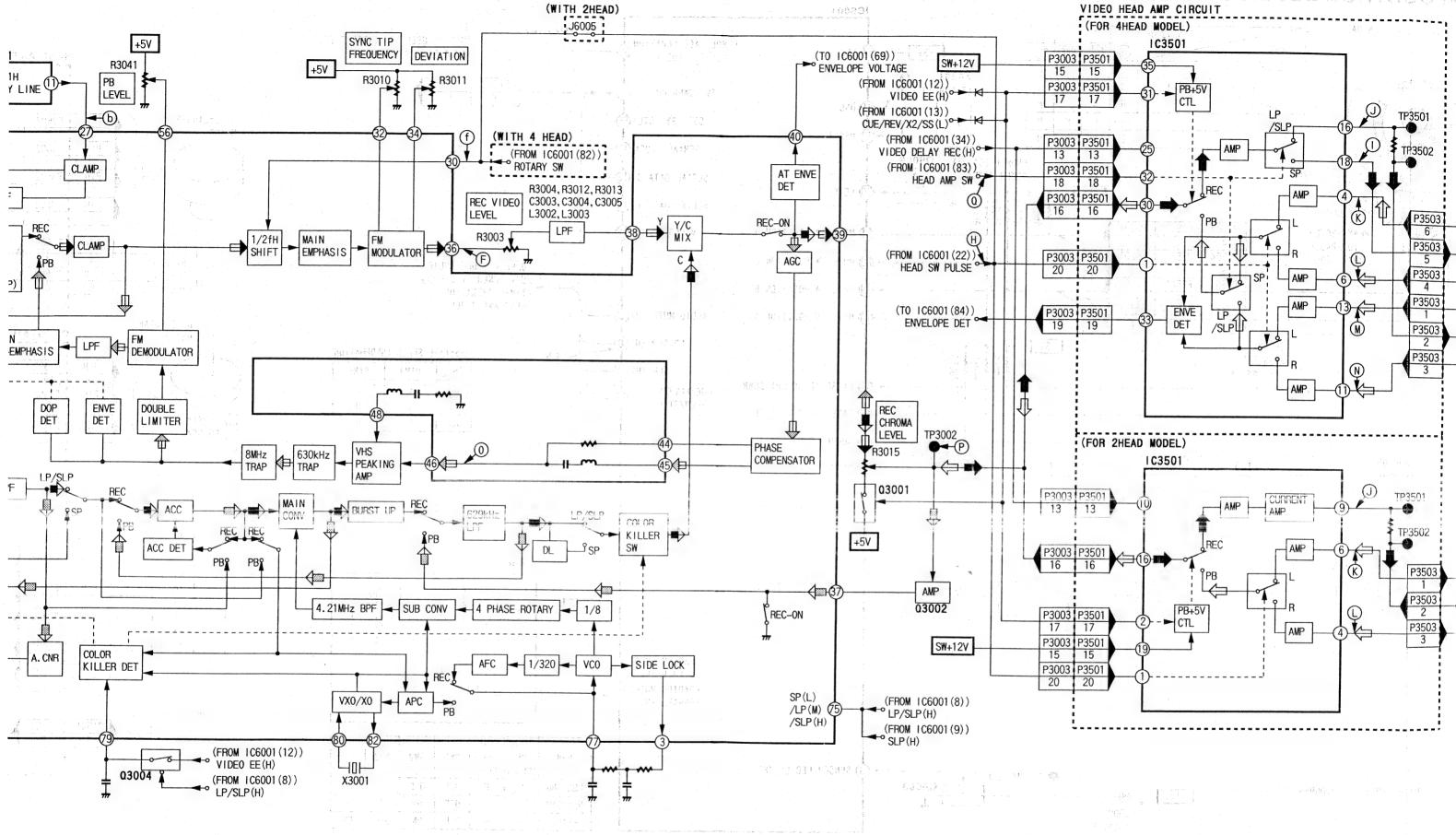
SYMPTOM		FLOW OF TROUBLESHOOT——						:
	CHECK POINT	P	(D)	E	TV			
	IF NO.	+	₩.	. ↓	•			
PB NOISE (SNOW)	CHANGE	IC3001 * NOTE1	* NOTE2	IC3301 CCV Circuit	* NOTE3			·

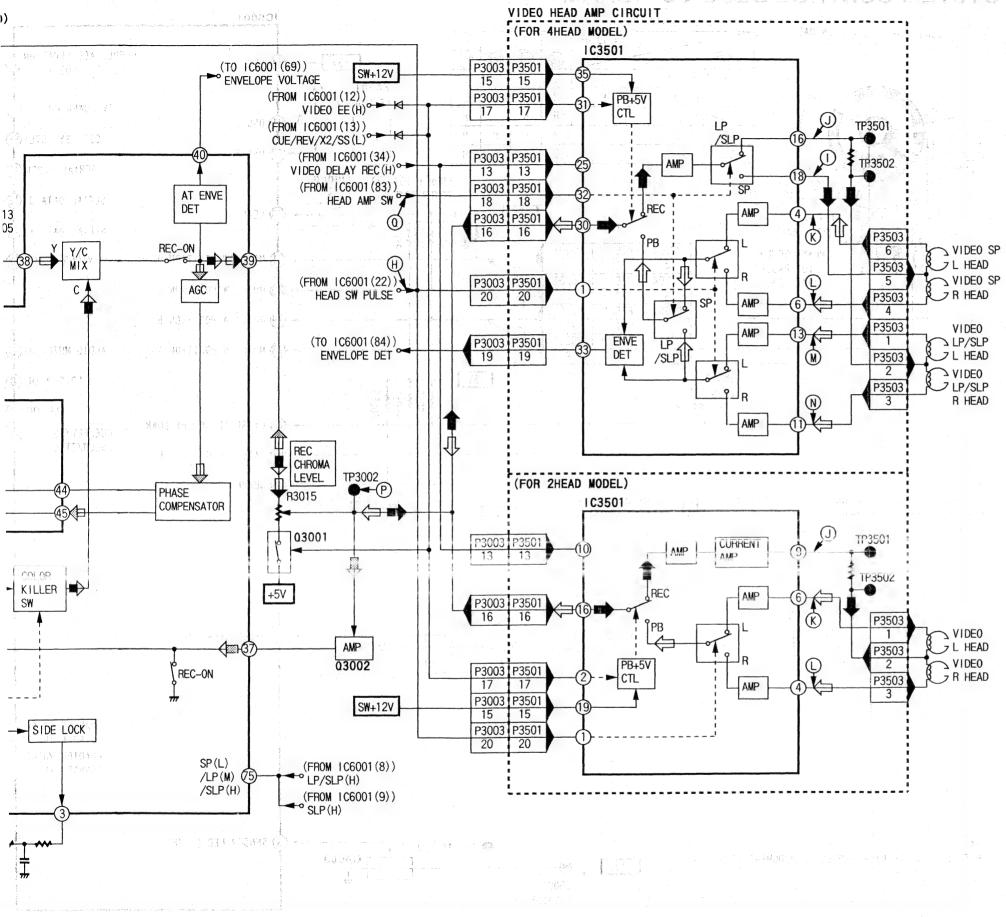
- * NOTE1: Try head cleaning and check Head Amp Shield Case or signals (K) to (N), (H) and (Q).
- * NOTE2: Check signals from (c).
- * NOTE3: Check TV Main Circuit or Video Out Terminal.

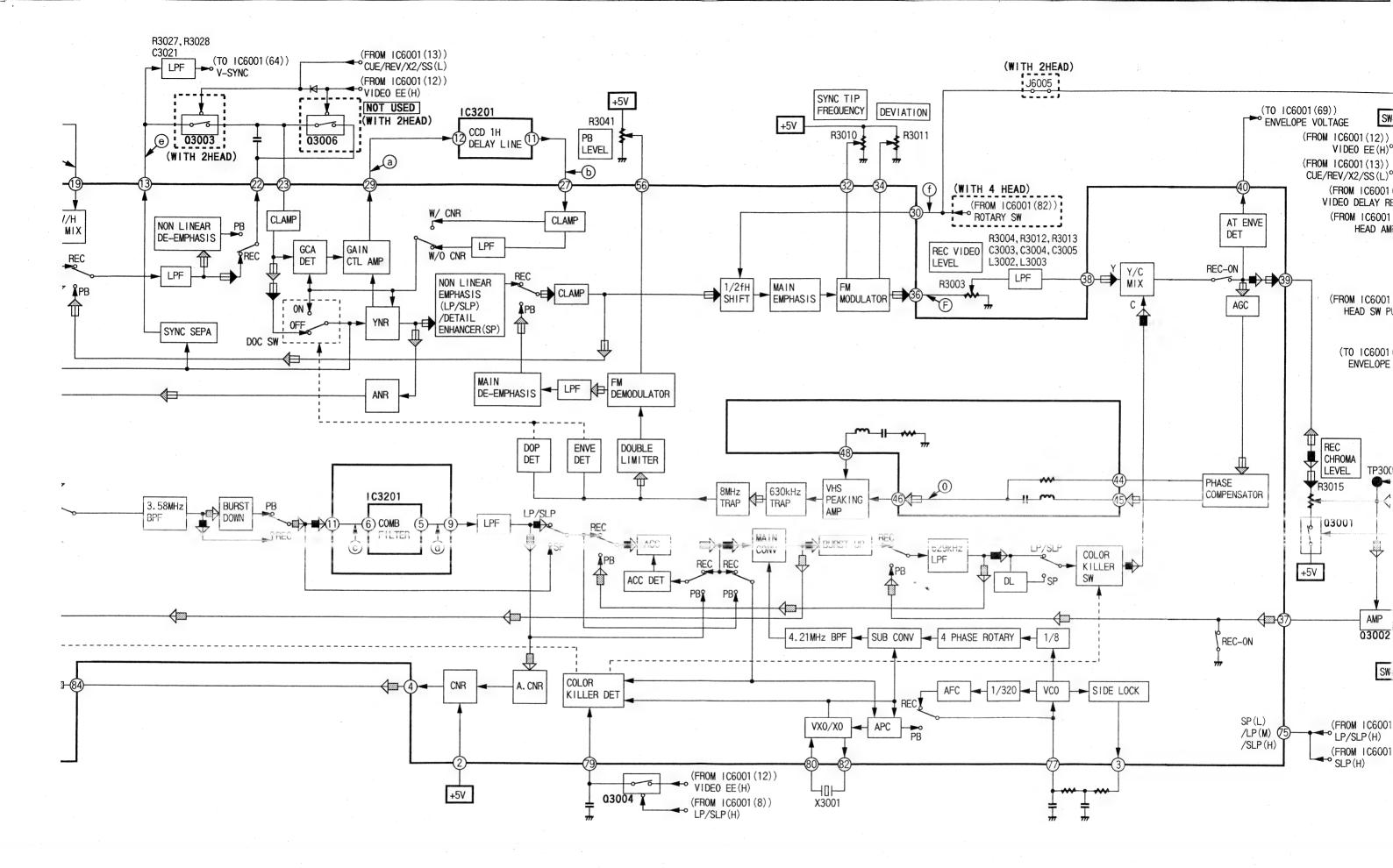


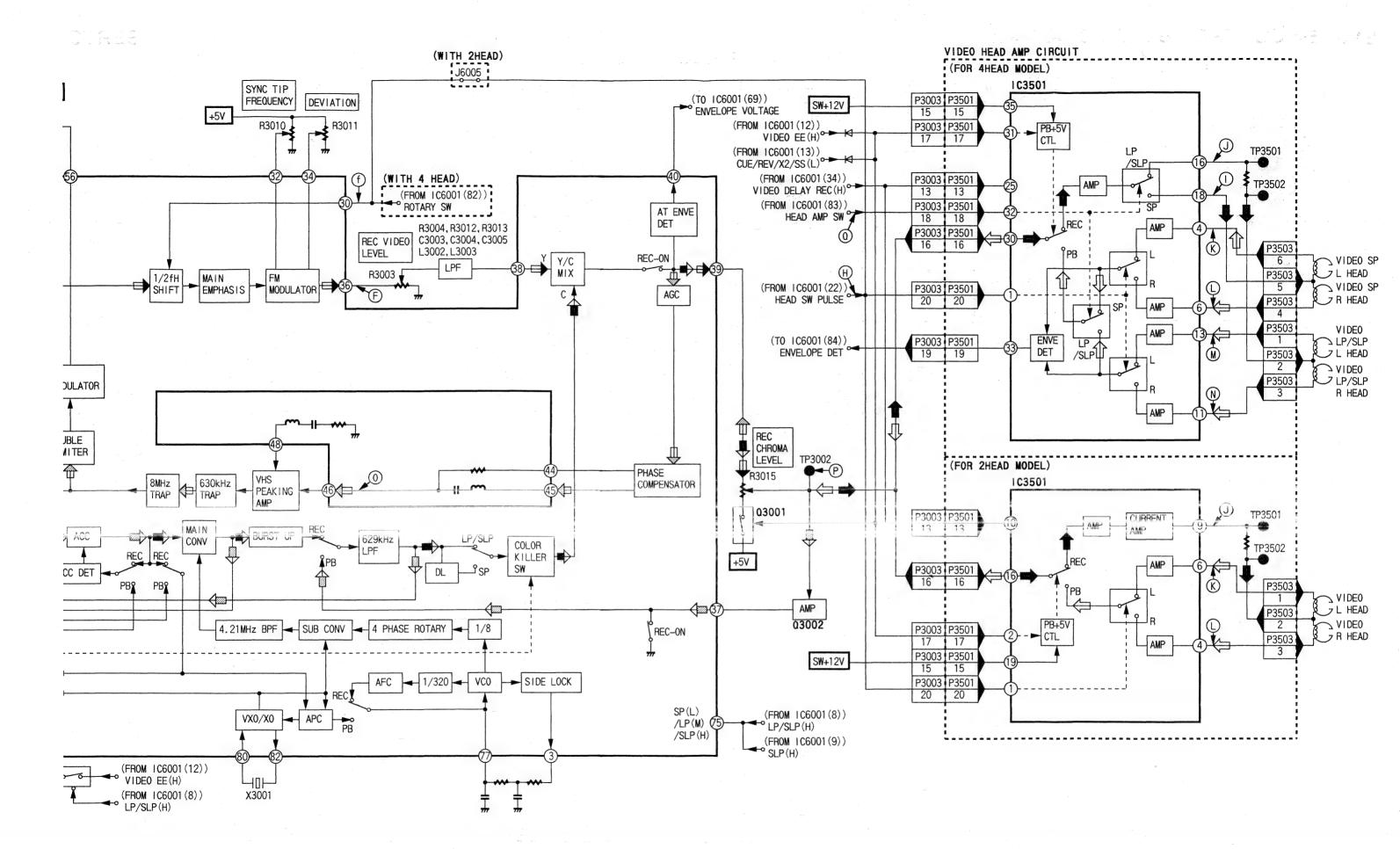






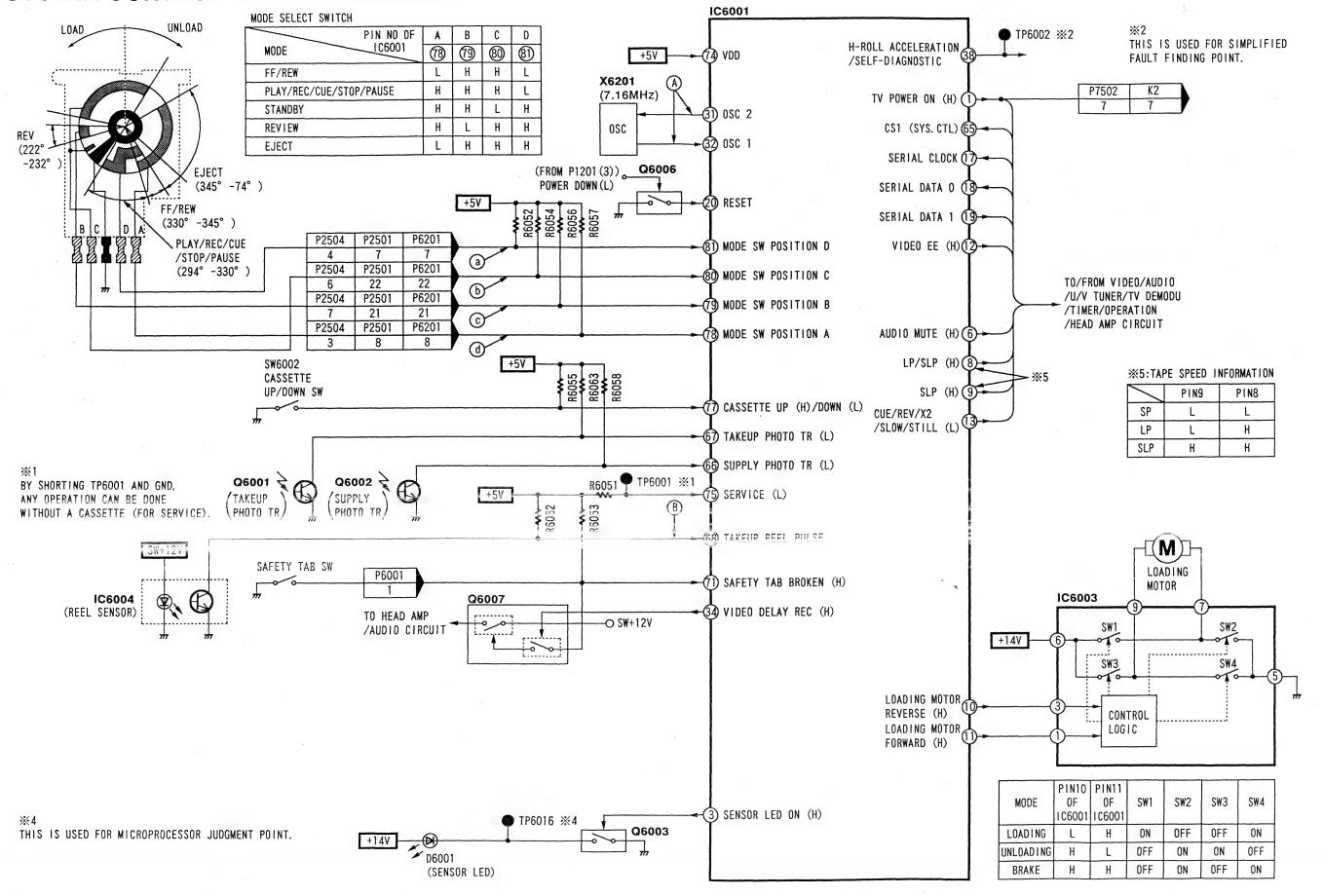


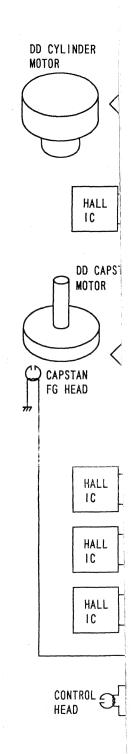




SYSTEM CONTROL BLOCK DIAGRAM

SERVO





SERVO BLOCK DIAGRAM

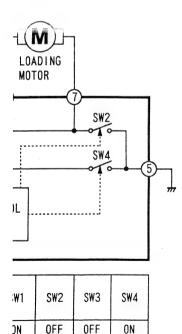




/AUDIO DEMODU ION CUIT

5: TAPE SPEED INFORMATION

	PIN9	PIN8
SP	L	L
LP	L	Н
LP	Н	Н



0FF

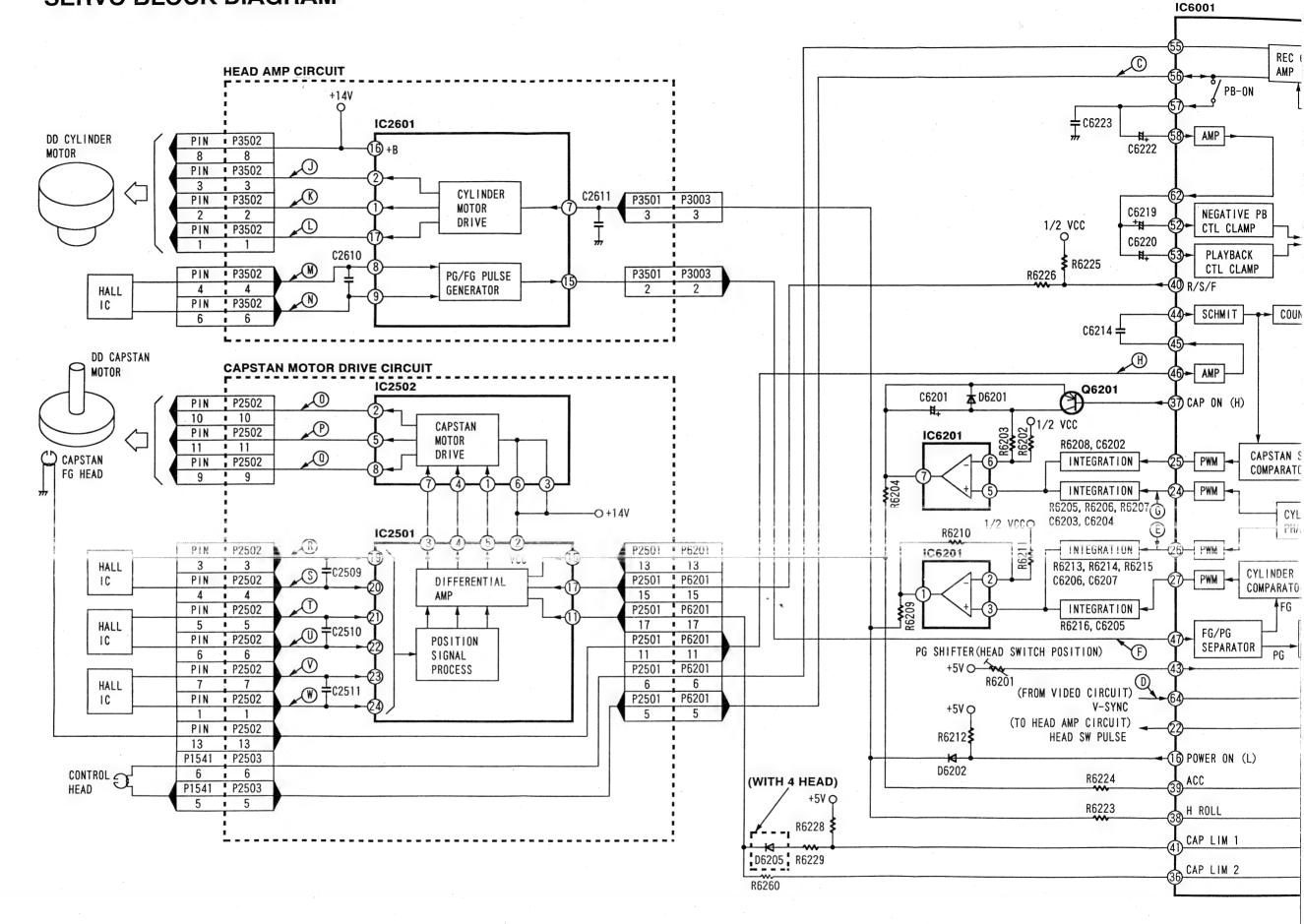
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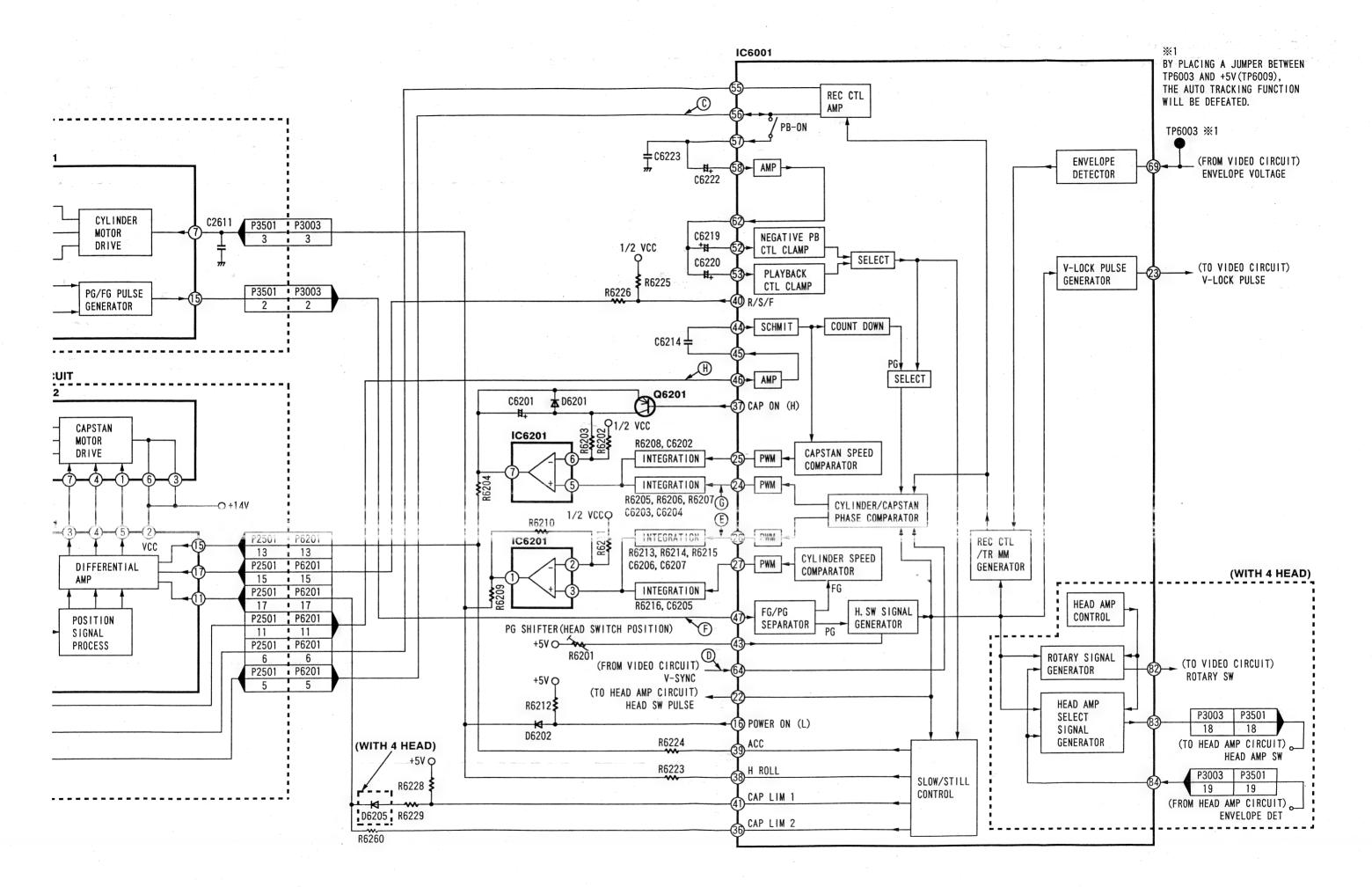
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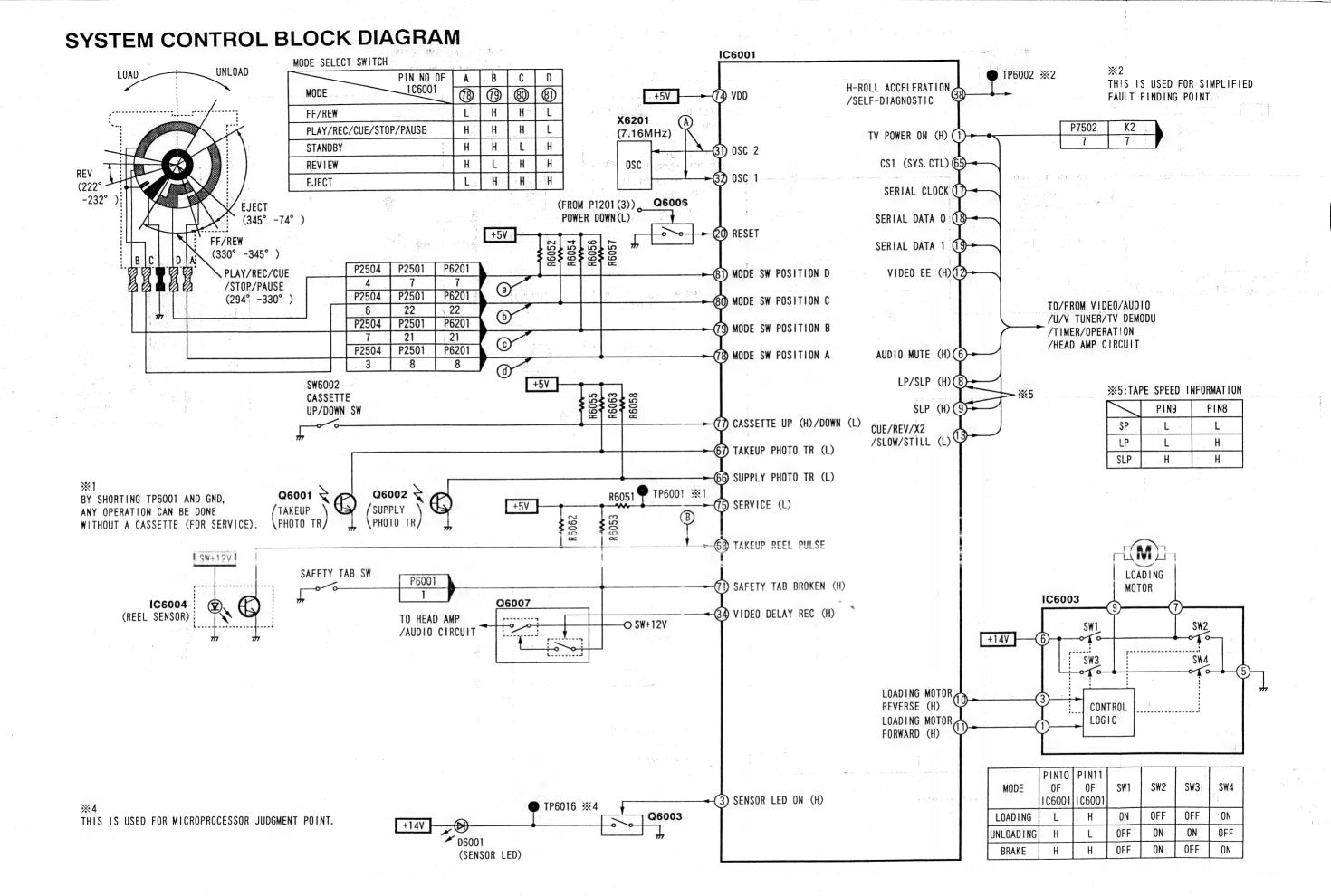
ON

ON

0FF

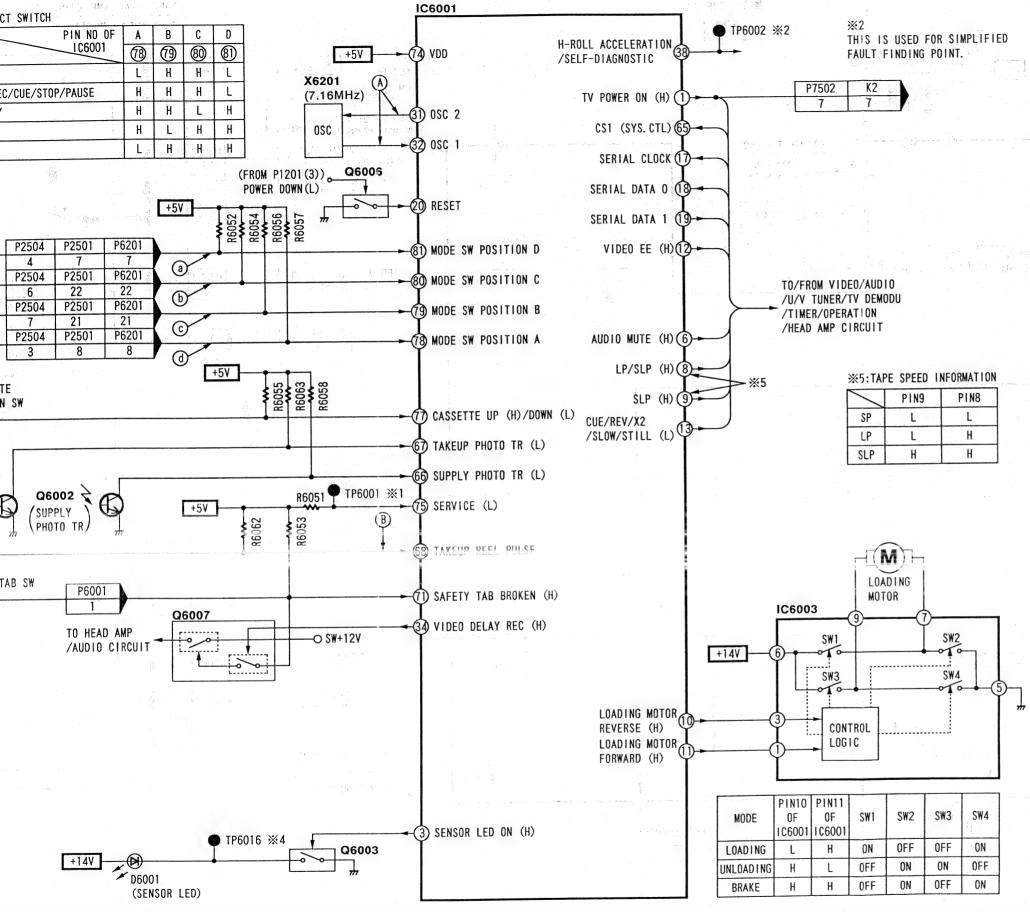


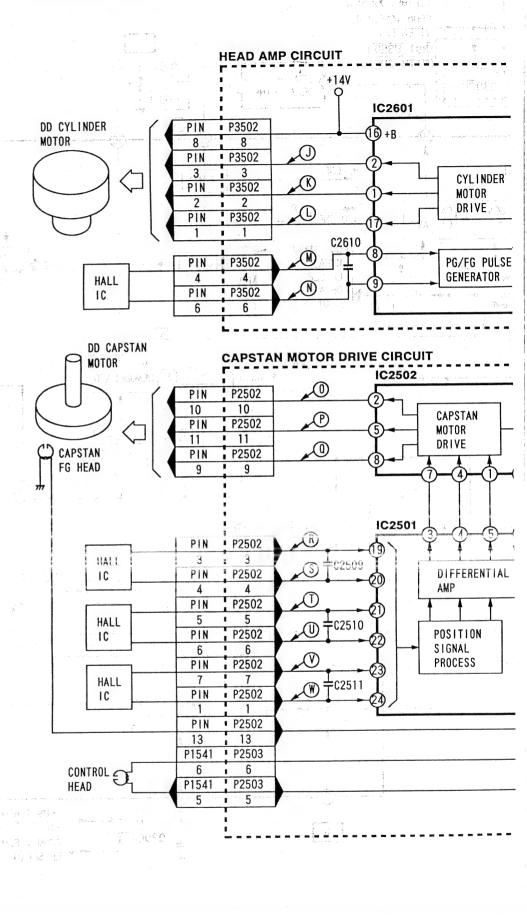


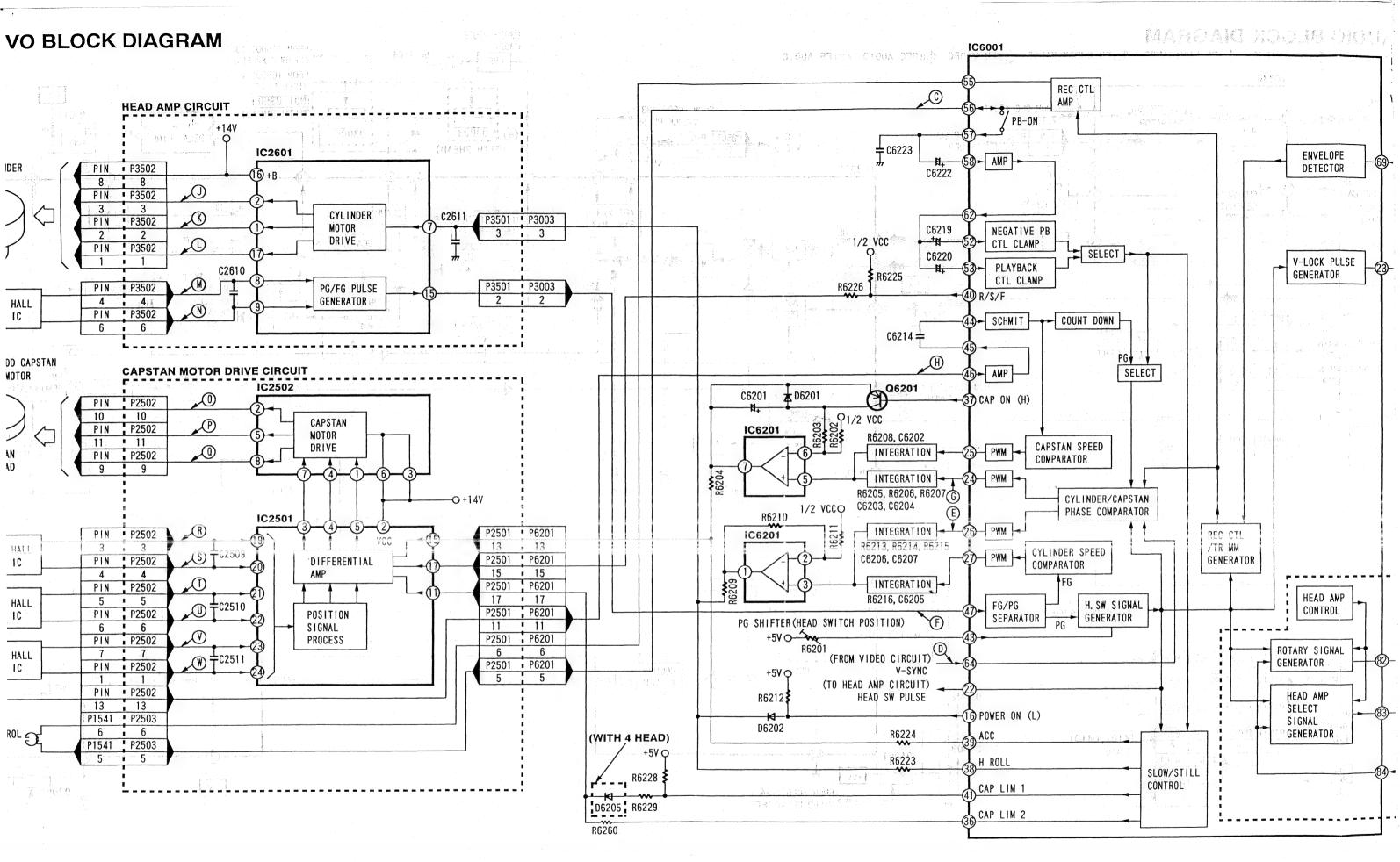


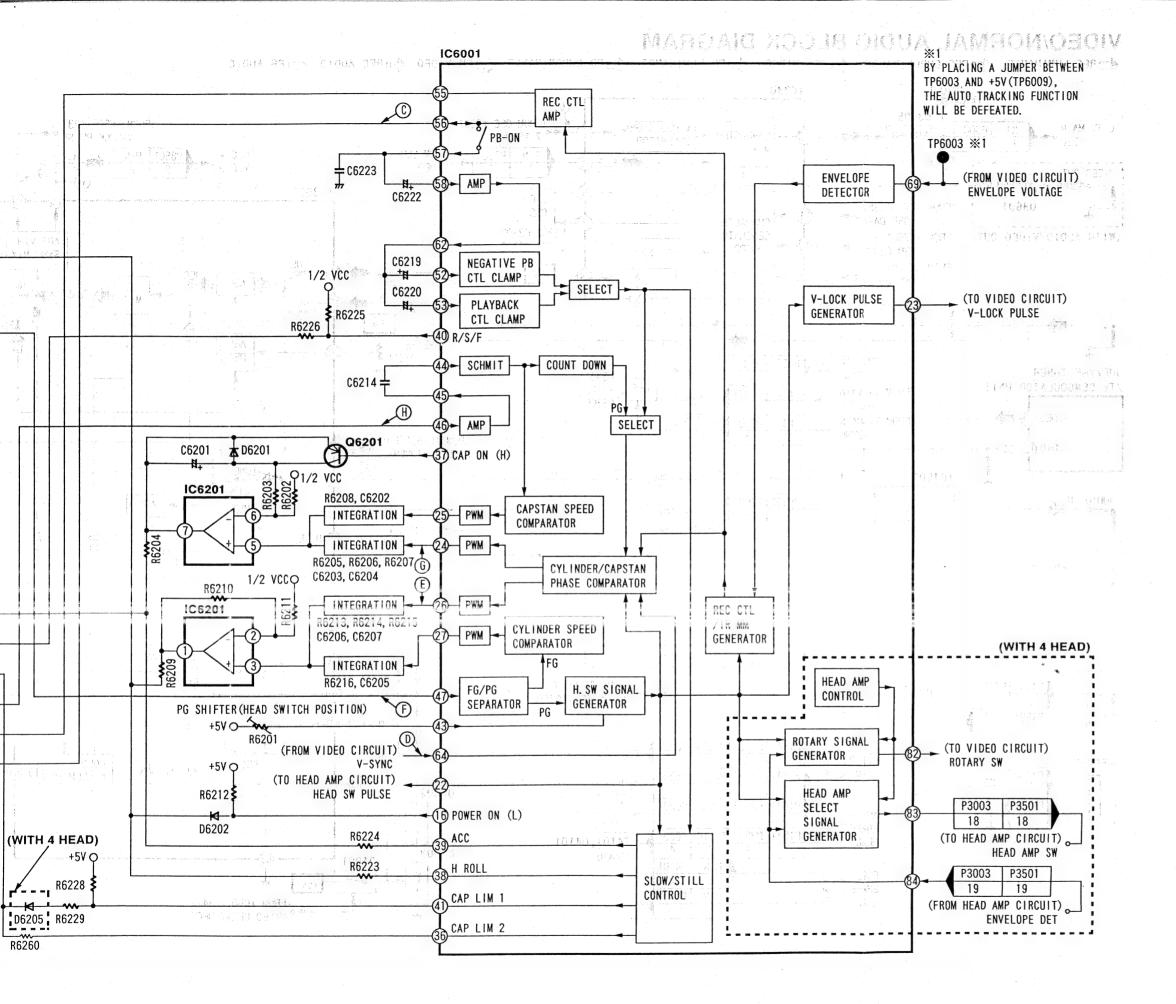
CDIAGRAM

SERVO BLOCK DIAGRAM









WAVEFORMS OF SYSTEM CONTROL AND SERVO STAGE

NO	WAVEFORM	NOTE	NO	WAVEFORM	NOTE	NO	WAVEFORM	NOTE
(A)	∭_4V _P -p	(7.159 MHz)	B	1.6sec 4Vp-p 5V	REC/P.B	©	33msec 5Vp-p	REC CTL
(D)	2Vp-p		Œ	18 μ sec 5Vp-p		Ē	33msec	
<u>(G</u>	18 μ sec 5Vp-p		Ξ	MM ⊢-l"F" (1∕T)	"F" = SP:1080 LP:540 SLP:360			
(a) (b) (c)	11Vp-p (180Hz)		(S) (Z)	0.95Vp-p		<u>O</u> <u>O</u> <u>O</u>	60msec 2Vp-p (12.5Hz)	
	0.1Vp-p (12.5Hz)							

SYSTEM CONTROL AND SERVO CHECKING PROCEDURE

SYMPTOM		FLOW OF TROUBLESHOOT					
Dead or Malfunctions	CHECK POINT	Pin74 (VDD5V)		Pin20 NORMAL(H)	Pin17 (SCK)	a ~ d	* NOTE2
Marianotions	IF NO.	₩.	*	•	*	*	
	CHANGE	Power	X6201	Q6006	IC6001	* NOTE1	

* NOTE1: Adjust Gear Phase. * NOTE2: Check Power Circuit.

SYMPTOM		FLOW OF TROUBLESHOOT					
NO PLAY	CHECK POINT	a ~ d	F	B			
	IF NO.	+	+	4			
	CHANGE	* NOTE1	* NOTE2	* NOTE3			

* NOTE1: Adjust Gear Phase.

* NOTE2: IC2601 (Cyl Drive) or Cylinder U.

* NOTE3: IC2501 or IC2502 (Cap Drive) or Reel Sensor.

SYMPTOM		FLOW OF TROUBLESHOOT							
Distorted Playback Pix (1)	CHECK POINT	(D)	D F * NOTE3 * NOTE5						
	IF NO.	4	+	*					
	CHANGE	* NOTE1	* NOTE2	* NOTE4					

* NOTE1: Check Video Circuit.

* NOTE2: IC2601 (Cyl Drive) or Cylinder U.

* NOTE3: Open pin 7 of IC2601 and apply external 2.5V DC to pin 7. * NOTE4: If the picture is still the same, change IC2601 or Cylinder U.

* NOTE5: If the picture is improved, change IC6001 or IC6201.

SYMPTOM		FLOW OF TROUBLESHOOT							
Distorted Playback Pix (2)	CHECK POINT	0	(H)	* NOTE3	* NOTE5				
(#B)	IF NO.	•	*	*					
(Periodic Noise bar)	CHANGE	* NOTE1	* NOTE2	* NOTE4					

* NOTE1: Check tape travel and clean A/C head.

* NOTE2: Check FG Head.

* NOTE3: Open pin 15 of IC2501 and apply external 2.5V DC to pin 15.

* NOTE4: If the picture is still the same, change IC2501,2502 or Capstan Motor.

* NOTE5: If the picture is improved, change IC6001 or IC6201.

TIMING CHART 3

I HAIHIAG CI	1,	111 0			
ACTION	▼ PLAY/REC (CYL ON) ▼ PLAY/REC (CYL OFF)				
POSITION			9		9
TIME ms*	Ī	28	48	28	28
CAPSTAN ON(H) (PIN 37)		3A-1			3B-2
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	М	. 1		М	1 L
CYLINDER ON (L)	_			3B-1	
VIDEO D. REC (H) (PIN 34)	_		PLAY	_	PLAY
VIDEO EE(H) (PIN 12)	_		PLAY		REC PLAY
AUDIO MUTE(H) (PIN 6)	-		PLAY REC		PLAY

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

3. PLAY/REC

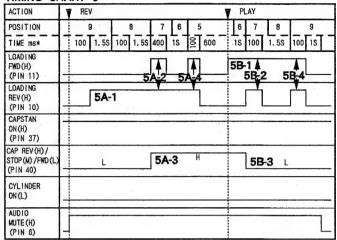
3A. CYLINDER ON

3A-1. The Capstan Motor starts rotation in a forward direction for REC/PLAY.

CYLINDER OFF

38-1. The Cylinder Motor starts rotation for quick play.
38-2. 2 seconds later, Cylinder Motor rotation is stabilized and the Capstan Motor starts rotation in a forward direction.

TIMING CHART 5



NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF 1C6001.

2) *: IT SHOWS MAX! MUM TIME.

MODE BY MODE OPERATION

5. REVIEW

5A. PLAY TO REVIEW

5A-1. The Loading Motor starts rotation in a reverse direction.

5A-2. Just after the Pressure Roller and the Tension Arm are released, the Loading Motor stops.

5A-3. While the Loading Motor is stopped, the Capstan Motor changes

its direction to reverse. 5A-4. When the Mode Switch reaches position 5, the Loading Fwd(H) signal goes HIGH to apply a brake to the Loading Motor. The Pressure Roller is applied to the Capstan Shaft.

5B. REVIEW TO PLAY

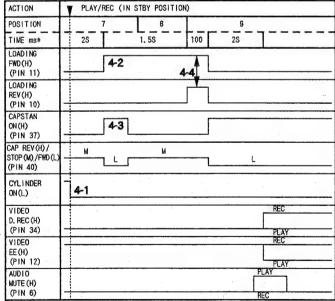
5B-1. The Loading Motor starts rotation in a forward direction. 5B-2. Apply a brake to the Loading Motor.

58-3. While the Loading Motor is stopped, the Capstan Motor changes

its direction to forward.

5B-4. When the Mode Switch reaches position 9, the Loading Motor stops.

TIMING CHART 4



NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

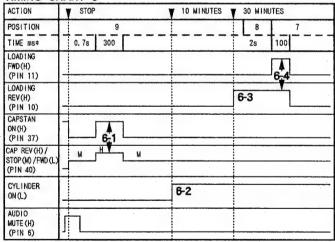
4. PLAY/REC (FROM STANDBY POSITION)

- 4-1. The Cylinder Motor starts rotation for quick play.
 4-2. The Loading Motor starts rotation in a forward direction.

4-3. The Idler Gear swings over to Takeup Reel.

4-4. When the Mode Switch reaches position 9, the Loading Rev(H) signal goes HIGH to apply a brake to the Loading Motor. Then the Loading Motor stops quickly.

TIMING CHART 6



NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF 1C6001.

2) *: IT SHOWS MAXIMUM TIME.

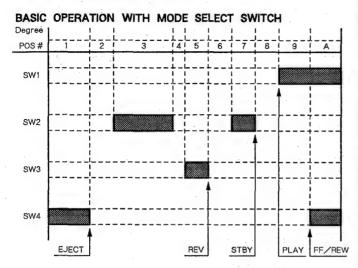
MODE BY MODE OPERATION

6. PLAY TO STOP/AFTER 10 MINUTES/AFTER 30 MINUTES

6-1. The Capstan Motor rotates a little in reverse direction to reduce the tape tension.
6-2. After 10 minutes, the Cylinder stops.
6-3. After 30 minutes, the Mechanism changes the position to 7(Standby).

6-4. At this position, the Pressure Roller and the Tension Arm are released to reduce the tape tension.

TIMING CHART



TIMING CHART 1

ACTION	CASSETTE IN/PLAY (S-TAB OFF)
POSITION	1 2 3/4/5/6 7 8 9
TIME ms*	2. 6S 5. 1S 2S 2S
CASSETTE DOWN(L) (PIN 77)	1-2
LOADING FWD(H) (PIN 11)	1-3
LOADING REV(H) (PIN 10)	Λ
CAPSTAN ON(H) (PIN 37)	← 1-4 → 1-6
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	M M M
CYLINDER ON (L)	1-1
VIDEO EE(H) (PIN 12)	
AUDIO MUTE(H) (PIN 6)	

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF 1C6001.

2) *: IT SHOWS MAXIMUM TIME.

- MODE BY MODE OPERATION

 1. CASSETTE IN/PLAY (WITHOUT SAFETY TAB)
- 1-1. The Cylinder starts rotation for quick play.
- 1-2. The Cassette Down(L) signal goes LOW. (If the Cassette Down(L) signal does not go LOW even at position 2. the unit ejects the tape.)
 1-3. The Loading Motor starts rotation in a forward direction.
 1-4. 1)The Play idler returns to center.

- 2) The Idler Gear swings over to Takeup Reel. 1-5. When the Mode Switch reaches position 9, the Loading Rev(H) signal goes HIGH to apply a brake to the Loading Motor.
- Then the Loading Motor stops. 1-6. Starts playback.

TIMING CHAPT 2

HIVIIING C	ANI Z
ACTION	CASSETTE IN/STOP (S-TAB ON)
POSITION	1 2 3/4/5/6 7 8 9
TIME ms*	2. 6S 5. 1S
CASSETTE DOWN(L) (PIN 77)	2-2
LOADING FWD(H) (PIN 11)	2-3
LOADING REV(H) (PIN 10)	
CAPSTAN ON(H) (PIN 37)	2-4 → 2-6
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	M M M . H
CYLINDER ON(L)	2-1

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001. 2) *:IT SHOWS MAXIMUM TIME.

- MODE BY MODE OPERATION
 2. CASSETTE IN/STOP (WITH SAFETY TAB)
- 2-1 thru 2-5 are the same as 1-1 thru 1-5 of Timing Chart 1 (without
- 2-6. The Capstan Motor rotates a little in reverse direction to reduce the tape tension.

TIMING CHART 7

ACTION:	FF/REW (CYL ON)	FF/REW (CYL OFF)
POSITION	9	A	9 A
TIME ms*	1.58 10	400 200	2S 1.5S 100
LOADING FWD(H) (PIN 11)	7A-1	2	7B-2 1 7B ₂ 3
LOADING REV(H) (PIN 10)			
CAPSTAN ON(H) (PIN 37)		7A-3	7B-4
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	М	H REW	M H REW
CYLINDER ON (L)	_		7B-1
FF/REW(L)			

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

7. STOP TO FF/REW

7A. CYLINDER ON

7A-1. Changes the mechanism position to A(FF/REW) to release the /TA-2. Pressure Roller and the Tension Arm.
7A-3. The Capstan Motor starts rotation for FF/REW. During FF/REW, the Cylinder keeps rotation to prevent a tape damage.

7B. CYLINDER OFF

7B-1. The Cylinder Motor starts rotation.

7B-2/7B-3/7B-4, these are the same as that of 7A-1 thru 7A-3.

TIMING CHART 9

ACTION	¥ EJECT ¥ EJECT
POSITION	9/8 7 6/5/4 3/2 1
TIME ms*	78 200 45 40 100
CASSETTE DOWN(L) (PIN 77)	9-4
LOADING FWD(H) (PIN 11)	9.6
LOADING REV(H) (PIN 10)	9-1
CAPSTAN ON(H) (PIN 37)	9,2 9,3 9,7
CAP REV(H)/ STOP(W)/FWD(L) (PIN 40)	M JH N JH N J N N N N N N N N N N N N N N
CYLINDER ON (L)	9-5

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF 106001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

9. STOP TO EJECT

9-1. Unloads the mechanism to the Eject position(1). 9-2. The Idler Gear swings over to Supply Reel.

9-3. The Capstan Motor rotates in reverse direction to takeup a tape

9-4. The Cassette Down(L) signal goes HIGH. 9-5. When the Mode Switch reaches position 1, the Cylinder stops.

9-6. The Loading Motor stops.

9-7. The Idler Gear is released from Supply Reel.

TIMING CHART 8

ACTION	FF/REW (STBY)	▼ STOP
POSITION	7 8/9 A	9/8 7 8 9
TIME ms*	25 2.65 100 400 200	200 2, 68 250 1, 58 100
LOADING FWD(H) (PIN 11)	8A-2 8A-3	88.5 88.3 88.6
LOADING REV(H) (PIN 10)		8B-2
CAPSTAN ON(H) (PIN 37)	8A-4	8B-4 8B-1 8B-1
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	M H REW	REW M
CYLINDER ON (L)	8A-1	
FF/REW(L)		

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

8. STOP TO FF/REW(FROM STANDBY POSITION)

8A. STOP (STANDBY) TO FF/REW

8A-1. The Cylinder Motor starts rotation.

8A-2. Changes the mechanism position to A(FF/REW) to release the

/8A-3. Pressure Roller and the Tension Arm.

8A-4. The Capstan Motor starts rotation for FF/REW. During FF/REW, the Cylinder keeps rotation to prevent a tape damage.

8B. FF/REW TO STOP

88-1. Apply a brake to the Capstan Motor for quick stop.

8B-2. Changes the mechanism position to 7 to release the Pressure

/8B-3. Roller and the Tension Arm.

8B-4. The Idler Gear swings over to Takeup Reel.

8B-5. Changes the mechanism position to 9(PLAY POSITION).

8B-7. The Capstan Motor rotates a little in reverse direction to reduce the tape tension.

TIMING CHART 10

ACTION	▼ PAUSE	PAUSE RELEASE V
POSITION	9 8 7 8 9 8 7	8 9
TIME ms*	400 28 300 28 100 3.58 28 100	2S 100 1. 2S 1. 56S
LOADING FWD(H) (PIN 11) LOADING	10A ₂ 2 10A ₂ 5 10A ₂ 8	10A-10 10A-11
REV(H) (PIN 10)	10A-1 10A-7	
CAPSTAN ON(H) (PIN 37)	1043 1046	9 10A-12 10B-1
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	M HT M HT M	м м
CYLINDER ON(L)		
VIDEO D. REC (H) (PIN 34)		

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001. 2) *:IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

10. REC TO REC PAUSE/REC PAUSE TO REC

10A REC TO REC PAUSE

10A-1. Changes the mechanism position to 7(STANDBY).

/10A-2.

10A-3. The Idler Gear swings over to Supply Reel.

10A-4. Changes the mechanism position to 9(PLAY POSITION). /10A-5.

10A-6. Rewind the tape for 3.5 sec(SP)/1.8 sec(LP)/1.23 sec(SLP). 10A-7. Changes the mechanism position to 7(STANDBY).

/10A-8.

10A-9. The Idler Gear swings over to Takeup Reel.

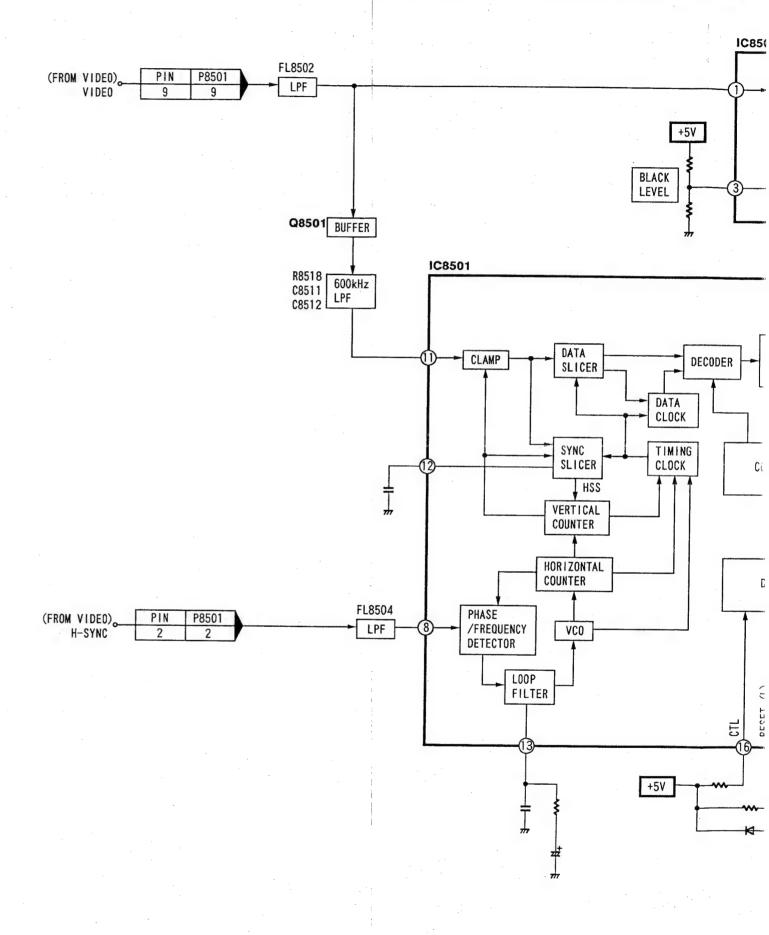
10A-10. Changes the mechanism position to 9(PLAY POSITION).

/10A-11.

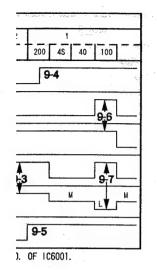
10A-12. Playback the tape for 1.2 seconds to adjust add-on recording portion.
10B. REC PAUSE TO REC

10B-1. The Capstan Motor starts rotation in forward direction for playback. (The video recording will be activated with the Video Delay Rec(H) signal.)

CCV(CLOSED CAPTION VIDEO DECODER) BLOCK DIAGRAM



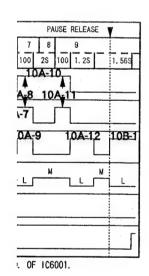
CCV(CLOSED CAPTION VIDEO DECODER) BLOCK DIAGRAM



:ion(1).
H. rection to takeup a tape

the Cylinder stops.

امما



7 (STANDBY).

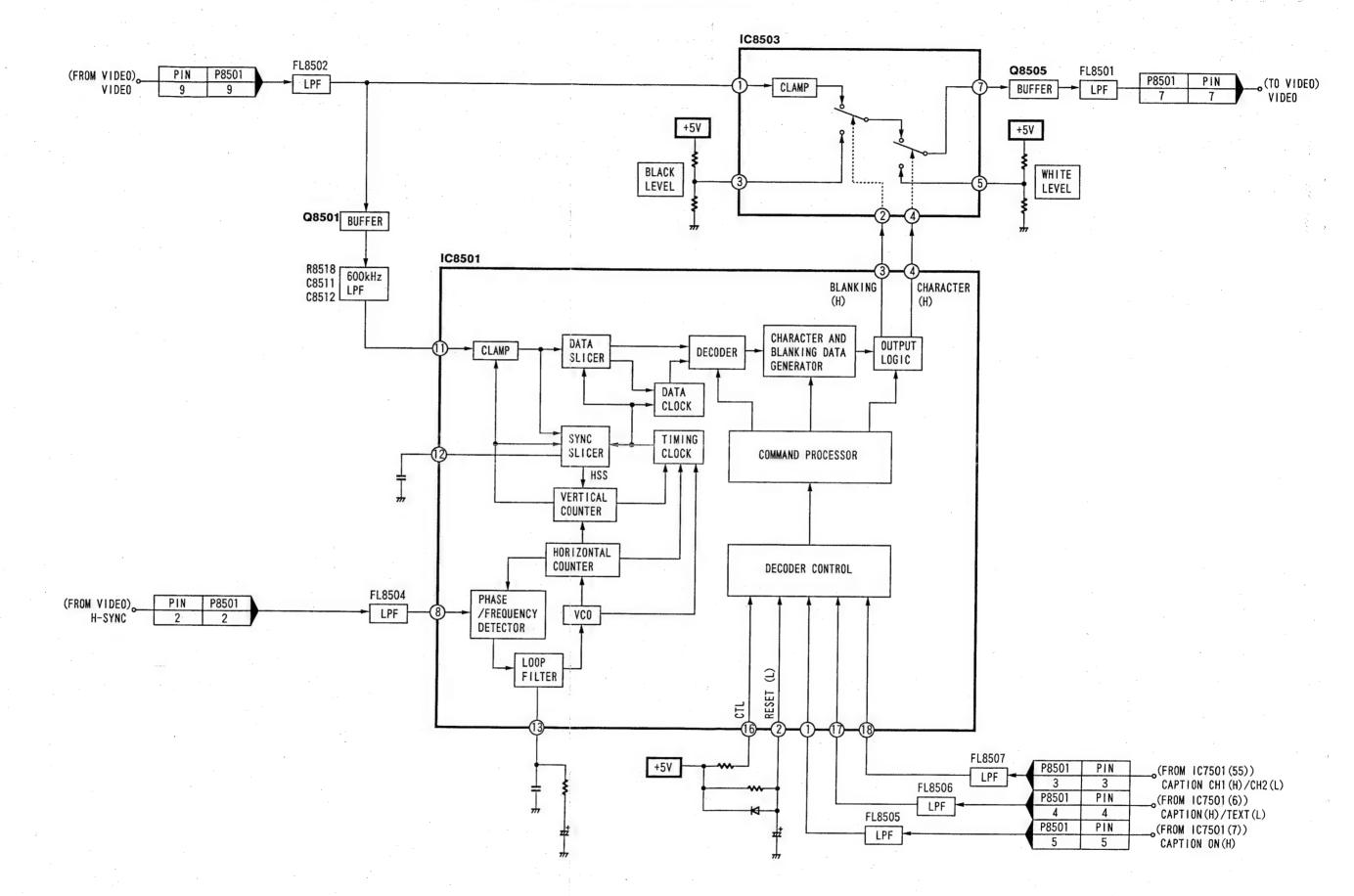
ply Reel. 9(PLAY POSITION).

.8 sec(LP)/1.23 sec(SLP). 7(STANDBY).

eup Reel. o 9(PLAY POSITION).

s to adjust add-on

in forward direction for II be activated with the





ACTION	¥ FF/F	REW (CYL ON)	FF/REW (CY	FF/REW (CYL OFF)			
POSITION	9	A	9	٨			
TIME ms*	1.58	100 400 200	2S 1.5S	100			
LOADING FWD(H) (PIN 11)	7A-1	7A-2	7B-2				
LOADING REV(H) (PIN 10)							
CAPSTAN ON(H) (PIN 37)		7A-3	- 0	7B-4			
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	, N	H REW		H REW			
CYLINDER ON (L)			7B-1	6889			
FF/REW(L)				18.			

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

7. STOP TO FF/REW

7A. CYLINDER ON

7A-1. Changes the mechanism position to A(FF/REW) to release the /7A-2. Pressure Roller and the Tension Arm.

7A-3. The Capstan Motor starts rotation for FF/REW. During FF/REW, the Cylinder keeps rotation to prevent a tape damage.

7B. CYLINDER OFF

7B-1. The Cylinder Motor starts rotation. 7B-2/7B-3/7B-4, these are the same as that of 7A-1 thru 7A-3.

TIMING CHART 9

ACTION	Y EJECT Y EJECT
POSITION	9/8 7 6/5/4 3/2 1
TIME ms*	7\$ 200 4\$ 40 100
CASSETTE DOWN(L) (PIN 77)	9-4
LOADING FWD(H) (PIN 11)	9.6
LOADING REV(H) (PIN 10)	9-1
CAPSTAN ON(H) (PIN 37)	9,2 9,3 9,7
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	M
CYLINDER ON(L)	9-5

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF IC6001. 2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

9. STOP TO EJECT

9-1. Unloads the mechanism to the Eject position(1).

The Idler Gear swings over to Supply Reel.

9-3. The Capstan Motor rotates in reverse direction to takeup a tape slack.

The Cassette Down(L) signal goes HIGH.

9-5. When the Mode Switch reaches position 1, the Cylinder stops.

9-6. The Loading Motor stops.

9-7. The Idler Gear is released from Supply Reel.

TIMING CHART 8

ACTION .	1	FF/	REW (S	TBY)				STOP	:		
POSITION		7		8/9	Π	A		9/8	7	8	9
TIME ms*		28	2.	68	100	400 200	_	200 2.68	250	1.58	100
LOADING FWD(H) (PIN 11)			8A-2	8	A-3				8B-3		A 8B_6
LOADING REV(H) (PIN 10)					V	Constitution of the Consti	a glorianismos	8B-2			The state of the s
CAPSTAN ON(H) (PIN 37)	_					8A-4	8	B-1	B-4		8B£7
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	-			W		H REW		TEF M	LL	М	u
CYLINDER ON (L)	-	8A-	1								
FF/REW(L)	-								-		* A

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF 1C6001.

2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

8. STOP TO FF/REW(FROM STANDBY POSITION)

8A. STOP(STANDBY) TO FF/REW

8A-1. The Cylinder Motor starts rotation. 8A-2. Changes the mechanism position to A(FF/REW) to release the

/8A-3. Pressure Roller and the Tension Arm.

8A-4. The Capstan Motor starts rotation for FF/REW. During FF/REW, the Cylinder keeps rotation to prevent a tape damage.

8B. FF/REW TO STOP

8B-1. Apply a brake to the Capstan Motor for quick stop.

8B-2. Changes the mechanism position to 7 to release the Pressure

/8B-3. Roller and the Tension Arm.

8B-4. The Idler Gear swings over to Takeup Reel. 8B-5. Changes the mechanism position to 9(PLAY POSITION).

8B-7. The Capstan Motor rotates a little in reverse direction to reduce the tape tension.

TIMING CHART 10

ACTION	▼ PAUSE PAUSE RELEASE ▼
POSITION	9 8 7 8 9 8 7 8 9
TIME ms#	400 28 300 28 100 3.58 28 100 28 100 1.28 1.568
LOADING FWD(H) (PIN 11) LOADING	10A-4 10A-10 10A-2 10A-5 10A-8 10A-11
REV(H) (PIN TO)	10A-1 10A-7
CAPSTAN ON(H) (PIN 37)	10A-9 10A-12 10B-1
CAP REV(H)/ STOP(M)/FWD(L) (PIN 40)	M
CYLINDER ON(L)	
VIDEO D. REC (H) (PIN 34)	

NOTE: 1) PIN NO. WITH BRACKET INDICATES PIN NO. OF 1C6001. 2) *: IT SHOWS MAXIMUM TIME.

MODE BY MODE OPERATION

10. REC TO REC PAUSE/REC PAUSE TO REC

10A. REC TO REC PAUSE

10A-1. Changes the mechanism position to 7(STANDBY).

/10A-2.

10A-3. The Idler Gear swings over to Supply Reel.

10A-4. Changes the mechanism position to 9(PLAY POSITION).

/10A-5.
10A-6. Rewind the tape for 3.5 sec(SP)/1.8 sec(LP)/1.23 sec(SLP).
10A-7. Changes the mechanism position to 7(STANDBY).

10A-9. The Idler Gear swings over to Takeup Reel.

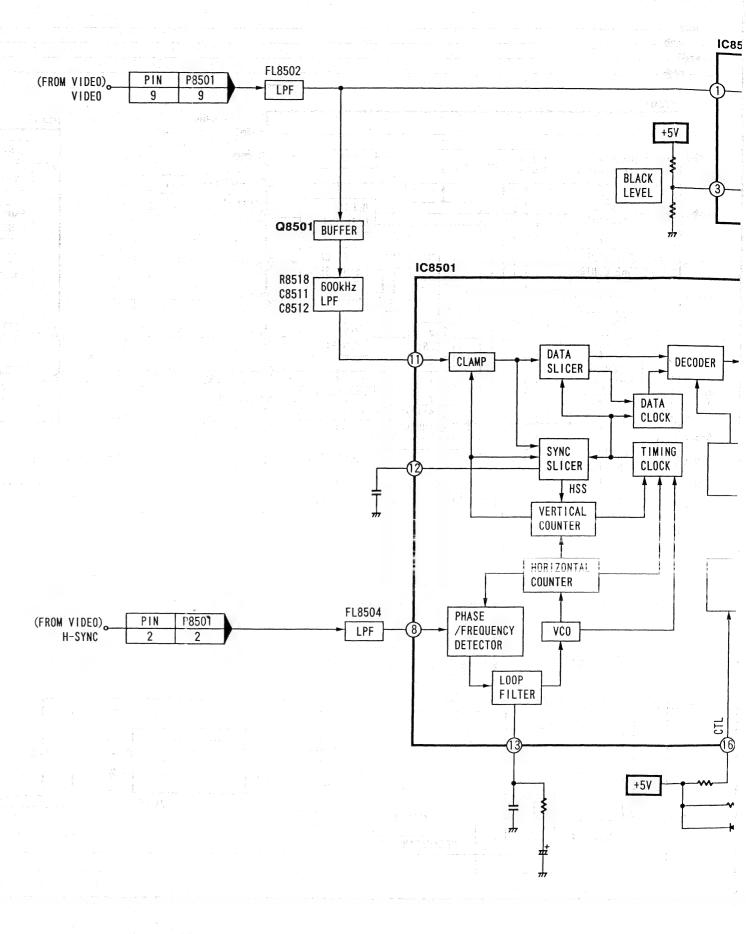
10A-10. Changes the mechanism position to 9(PLAY POSITION).

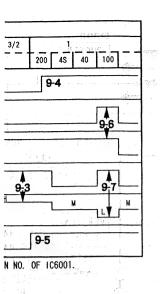
/10A-11. 10A-12. Playback the tape for 1.2 seconds to adjust add-on

recording portion. 10B. REC PAUSE TO REC

10B-1. The Capstan Motor starts rotation in forward direction for playback. (The video recording will be activated with the Video Delay Rec(H) signal.)

CCV(CLOSED CAPTION VIDEO DECODER) BLOCK DIAGRAM

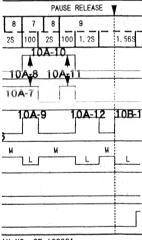




osition(1).
Reel.
direction to takeup a tape

iH. in 1, the Cylinder stops.

oly Reel.



IN NO. OF 1C6001.

on to 7(STANDBY).

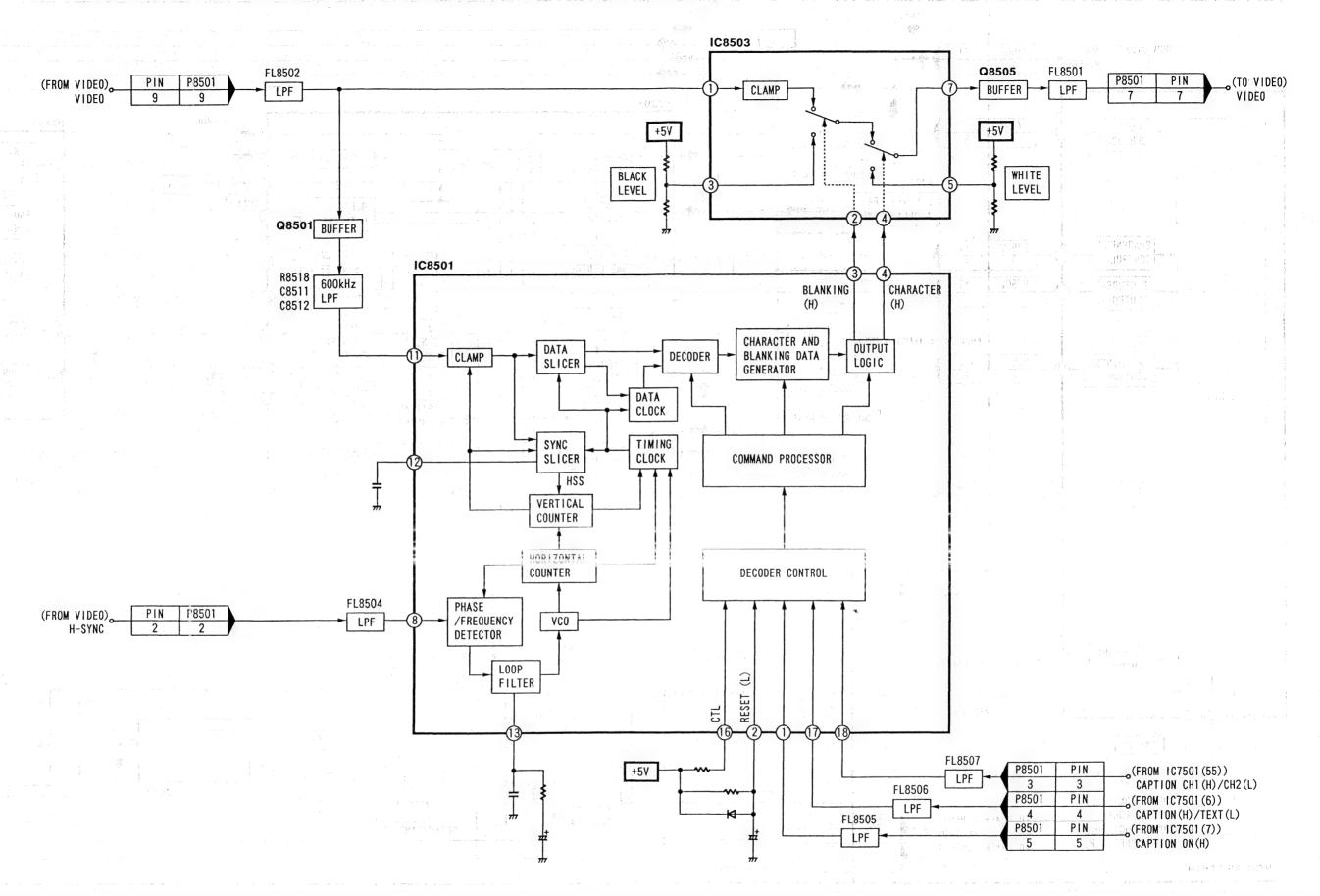
o Supply Reel. on to 9(PLAY POSITION).

SP)/1.8 $\sec(LP)/1.23$ $\sec(SLP)$. on to 7(STANDBY).

o Takeup Reel. ion to 9(PLAY POSITION).

econds to adjust add-on

ation in forward direction for ng will be activated with the



RL001

+12V

SW+12V

(FROM 1C7501(32))

(FROM IC7501(30)) SERIAL CLOCK

(FROM IC7501(56))

D/A CONVERTER (H)

VCR SECTION

SERIAL DATA O

TV POWER ON (H)

(TO POWER CIRCUIT)

(TO POWER CIRCUIT)

AC 120V

AC 120V

P1002

P1002

B2

B2

3

TV POWER CIRCUIT

FULL-WAVE

RECTIFIER

D801~D804

DEGAUSSING COIL

1300

REGULATOR

HORIZONTAL

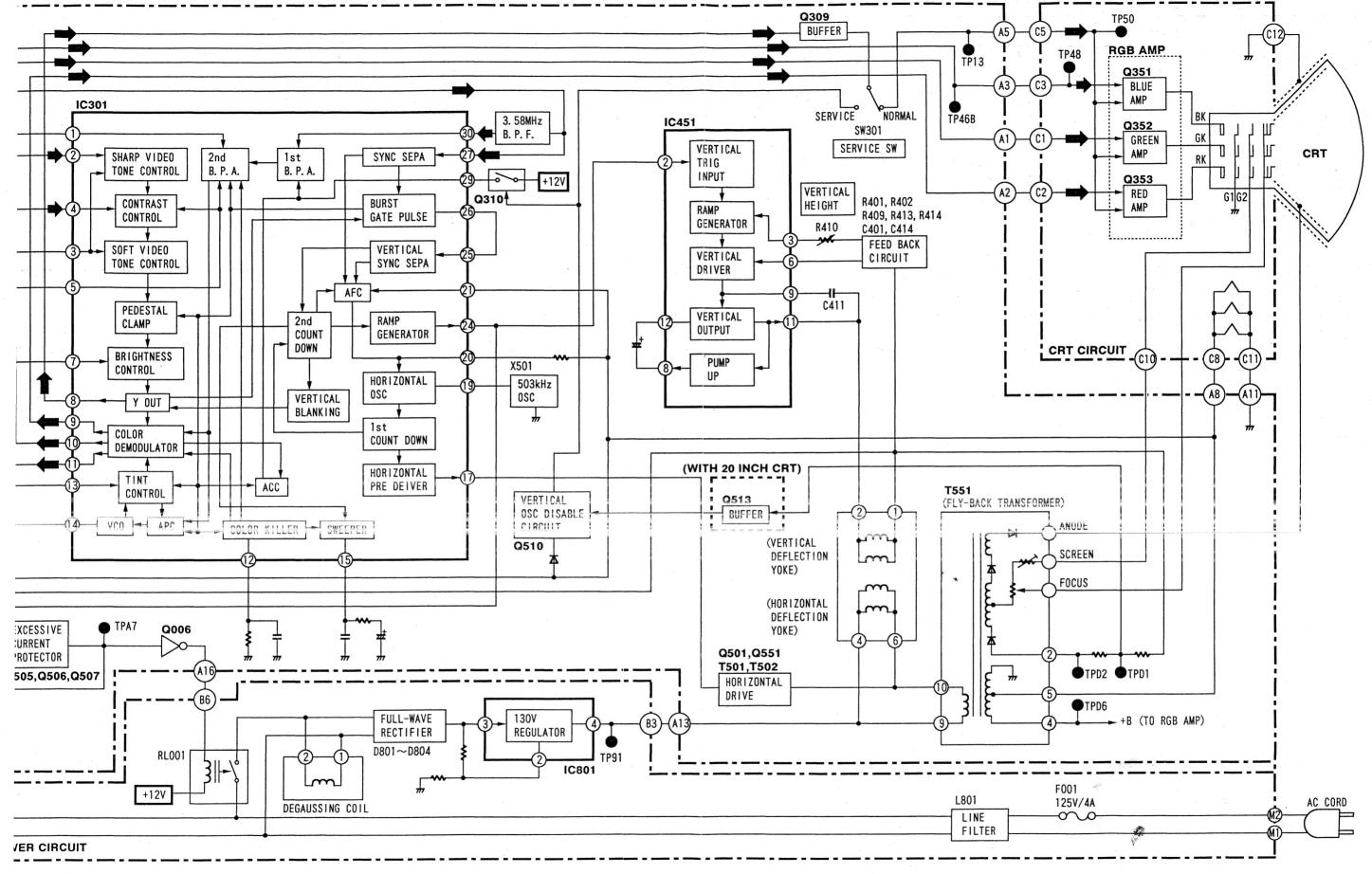
DRIVE

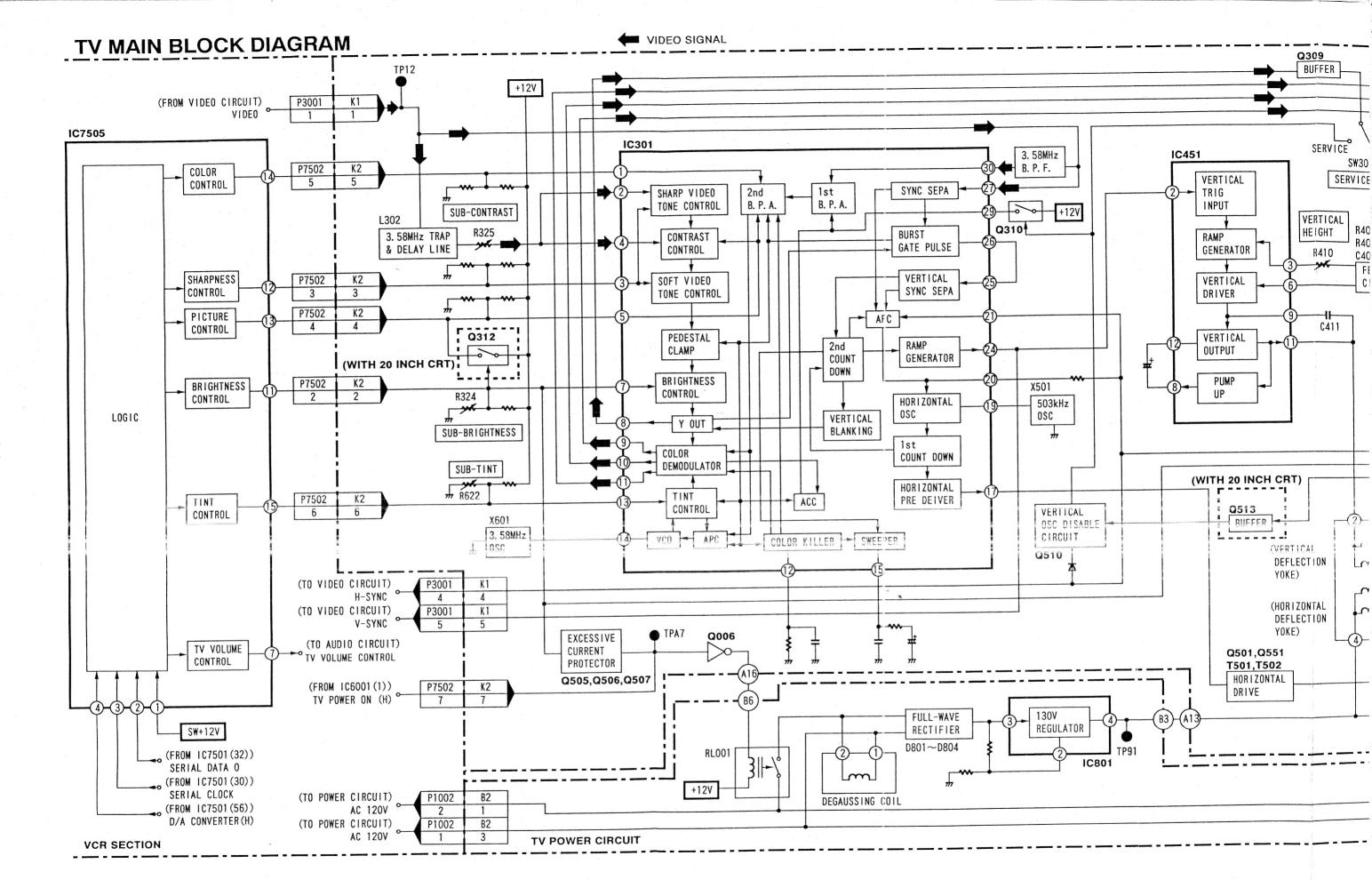
B3)

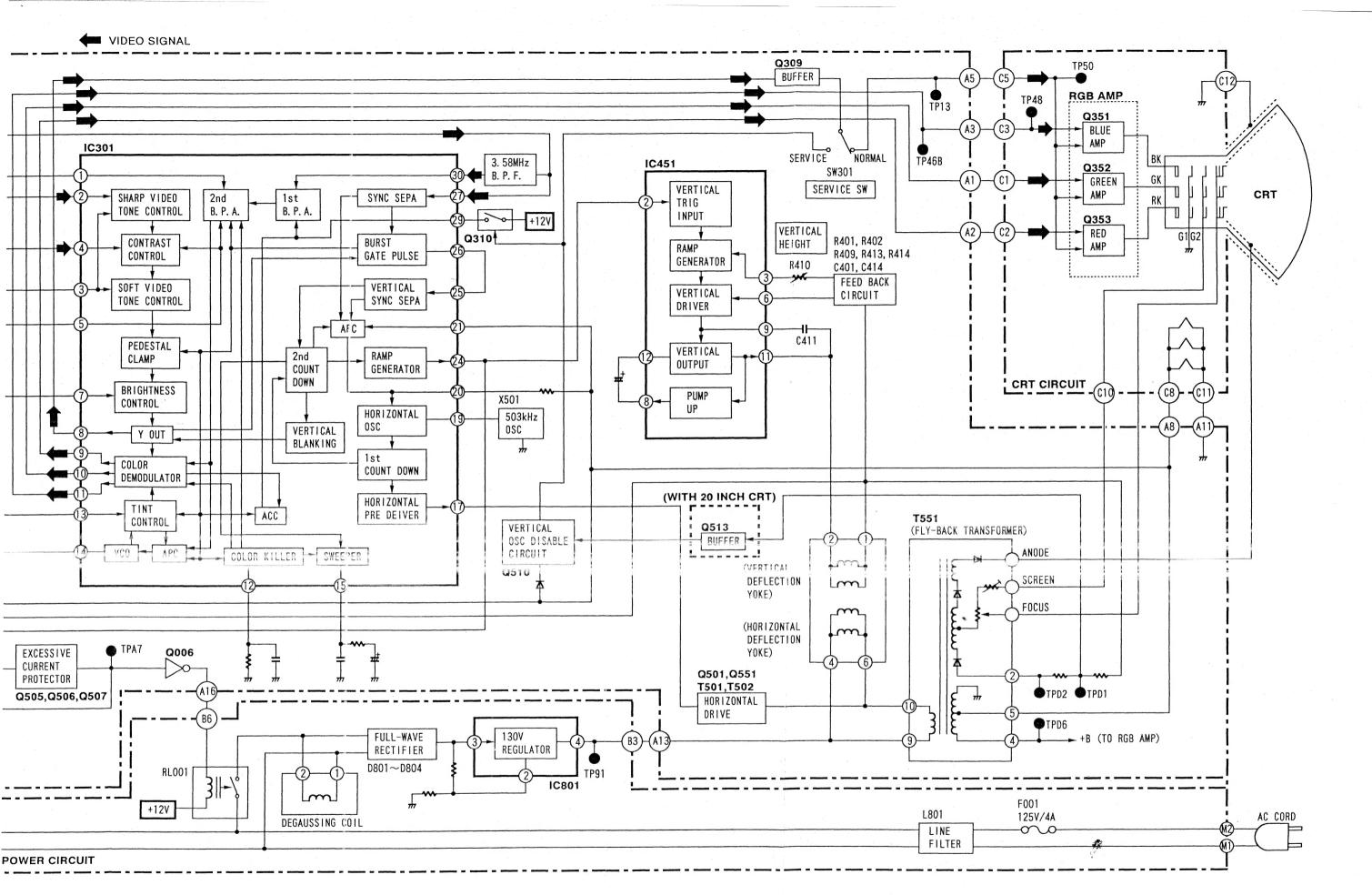
TP91

IC801









TIMER/OPERATION BLOCK DIAGRAM

